Ameren Illinois Power Company
Workforce Study Analysis

Prepared For
Illinois Commerce Commission

October 2008

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Ameren Illinois Power Company Workforce Adequacy Analysis Report

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Illinois Commerce Commission

For Jacobs Consultancy

Frank DiPalma

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1.0 Executive Summary

Background

The Illinois Commerce Commission (ICC, Commission, or Agency) retained Jacobs Consultancy Inc. (Jacobs Consultancy) to conduct a workforce study analysis of Ameren Illinois Power Company ("AmerenIP", "Company" or "Utility"), as specified by the Illinois Public Utilities Act, Section 4-602.

Ameren Corporation is the parent of three electric utilities in Illinois: Ameren Illinois Power Company ("AmerenIP"), Ameren Central Illinois Light Company ("AmerenCILCO"), and Ameren Central Illinois Public Service Company ("AmerenCIPS")—collectively "utilities," "Ameren," "Ameren utilities," or "Ameren's Illinois utilities". Illinois Power Company was acquired by Dynegy in February 2000 prior to being acquired by Ameren in September 2004 and now operates as AmerenIP.

AmerenIP's electric service territory covers 313 incorporated municipalities across 15,000 square miles of central, east central and southern Illinois. AmerenIP provides service to nine cities with populations greater than 30,000, including Danville, Decatur, Belleville, Bloomington-Normal, Champaign-Urbana, Galesburg and Granite City. The majority of AmerenIP's customer base is located in rural areas and small towns throughout Illinois. Electricity is distributed to nearly 626,000 retail electric customers.

Objective and Scope

The objective of the study is to determine the adequacy of the total in-house staffing in each job classification or job title critical to maintaining quality, reliability, and restoring service in the Utility's Illinois service territory. The analysis also examines the total number of contractor employees in the same manner as the in-house analysis.

The study is broken down into two tasks:

- **Task 1**—The first step in determining the adequacy of the Utility's workforce was to compute and compare the yearly workforce ratios during the 1995–2006 timeframe for the pertinent job classifications by service area, district, division, or region.
- **Task 2**—The second step in the study consisted of performing a detailed examination of AmerenIP's workforce adequacy critical to maintaining quality, reliability, and restoring service in the Utility's Illinois service territory.

As specified in Illinois Public Utilities Act, Section 4-602, that critical workforce is defined as:

1. In-house workers, commonly referred to as "linemen"
2. Meter service or repair employees
3. Customer service call-center employees

Approach

Our approach to Task 1—developing the workforce ratio report—consisted of collecting, rationalizing and performing an initial analysis of workforce ratios. In particular, we requested data from AmerenIP covering the 1995-2006 time periods on the levels of both in-house and contracted staff in each job classification or job title critical to maintaining quality, reliability, and restoring service. Specifically, data were collected and ratios were calculated for:

1. In-house workers, which consists of line workers and substation workers
2. Meter service or repair employees, which include meter technicians, meter readers and meter on-off employees
3. Customer service call-center staff, which includes residential, business and lead customer service agents, as well as mission control and other support service specialists
4. Contracted or outsourced employees used to support employees in categories 1, 2, or 3

Our approach to Task 2—assessing workforce adequacy— started with establishing a key study understanding, the definition of the word "adequacy". Adequacy is defined as the quality of being able to meet a need satisfactorily or being sufficient for the end in view.[1] Applying this definition to the Illinois Public Utilities Act, Section 4-602, suggests that a spectrum of staffing possibilities exists. Extremes range from providing sufficient in-house staffing to permit timely completion of all work requirements with no overtime and no use of external resources to depending heavily upon outside contractors to satisfy workload requirements that a static or shrinking in-house workforce is unable to complete in a timely fashion. Jacobs Consultancy does not believe either of these extremes can be proven to be economic or effective considering all stakeholder needs. In-house workforce adequacy should lie in the middle ground and comprise a blend of resources that cost-effectively maintains reasonable system reliability and service quality, while utilizing outside resources to meet peak workload requirements.

In our workforce adequacy analysis, we examined the existing mix of in-house and contractor workforce in the context of the job functions, level of involvement, and meeting the criteria expressed above. Consequently, we judged the adequacy of the overall workforce on the basis

[1] http://www.thefreedictionary.com/adequacy

of: system performance, levels of in-house overtime, use of contractors, existing in-house age and skills demographics, workforce plans, customer satisfaction statistics, and workload backlog.

To develop the Workforce Study Analysis report, we collected various related documents, conducted interviews of key individuals, visited several AmerenIP facilities and inspected numerous distribution assets including substations. Specifically in undertaking this analysis, we conducted 57 interviews with over 100 individuals representing both Ameren Illinois Company management and the bargaining units, and reviewed 119 AmerenIP documents.

Our detailed analysis includes comparisons of workforce levels against historical reliability indices as well as preventive and corrective maintenance orders indicative in determining workforce adequacy. Additionally, during the interview phase of our analysis, we interviewed several union officials and bargain unit members. The union representatives articulated various concerns that added additional focus to our workforce adequacy study.

Jacobs Consultancy's study of AmerenIP's workforce adequacy focused on a number of discrete assessments:

- **Maintenance and Operations**—included the dispatch function, the call center during normal operations, minor outages and major outages, emergency escalation procedures, troubleshooting, coordination with other emergency agencies, mutual aid arrangements, crew mobilization, utilization of contractor forces, maintenance planning, maintenance cycles, maintenance work accomplishment, backlogs, workplace barriers, staffing adequacy, crew sizes, system inspections, vegetation management, quality control, and use of contractors. We also examined the level of technology enablers employed to support this function.
- **Training and Safety**—included the new apprentice and continuing training programs for line workers, meter staff, and call center customer service representatives. We also reviewed the importance of safety in AmerenIP's organization, related training and the safety results achieved.
- **Quality Review**—included observations of AmerenIP's electric distribution facilities to determine the quality of work performed both by in-house and outsourced personnel. We also examined the quality of outsourced work accomplished by various contracting methods, including lump sum, and time and equipment.
- **Call Center**—included call center metrics to gauge the level of customer support. We reviewed call center changes, emergency escalation procedures, public agency communication provisions, and customer satisfaction surveys. We also examined the level of technology enablers employed to support this function.

Conclusions

To assess workforce adequacy in each of these areas, we examined as appropriate: staffing levels, use of contractors, overtime, work order backlog, system reliability performance, and customer satisfaction. We then balanced our analysis with AmerenIP's philosophy of maintaining an overall level of in-house employees needed to perform core base load work and complete workload peaks and valleys with contractors, while subcontracting lower-skilled work.

Line and Substation Workers

The staffing level for linemen remained fairly level over the 1995 to 2007 period, with some dips in the late 1990s and mid 2000s. The complement of in-house journeymen and apprentices was 301 in 2007. The Company has relied increasingly on contractors, which made up nearly 25% of the line and substation workforce in 2006.

AmerenIP has maintained its substation workforce level by proactively adding apprentices consistently since 1995 and has been using increasing levels of contract work in the substation area for construction and civil works, such as foundations, fencing, etc.

AmerenIP faces the same difficulty as many utilities in attracting experienced linemen and substation workers and therefore depends heavily on apprentice programs. One source for new apprentices is meter readers, some of whom are being displaced with the implementation of automated meter reading (AMR). However, with a potentially growing backlog of work requests for line workers and an aging workforce, AmerenIP will need to carefully consider its near and long-term resource requirements.

Meter Services Employees

The meter services staff complement, including contractors was fairly level over the 1998 to 2004 period, but increased significantly, mainly due to added contract staff to move toward monthly meter reading in 2005 and 2006 and as a result of the AMR implementation. The ratio of customers per meter services employee has generally inversely followed the trend in meter services workers and declined from a high of 3,214 in 2001 to 2,656 in 2006. We conclude that AmerenIP's meter services' workforce is adequate to provide required services.

Call Center Staff

The Company staffs the call center in accordance with the flow of call volume and uses technology to enhance the call center's capability to service customers in an effective and efficient manner. The technologies employed include: Customer Service System, High Volume Call Answering System, Integrated Voice Response Unit System, Electronic Workforce Management & Real Time Adherence System, Automatic Call Distributor, Call Quality

Monitoring & Survey System, and Computer Telephony Integration System. AmerenIP's call center internal goals and key performance indicators (KPIs) are satisfactory and increasing, indicating that the center is managed in an effective and efficient manner. AmerenIP's call center in the last five years has seen a decrease in customer satisfaction surveys conducted by Market Strategies International, Inc, J.D. Power & Associates, and Customer Contact Index (CCI). This could be a result of such issues as multiple storms and/or rate increases that are beyond the direct control of the call center.

Recommendations

Based on our analysis, we conclude that the overall adequacy of AmerenIP's workforce has generally been in harmony with its philosophy to maintain an overall level of in-house employees needed to perform core base load work and complete workload peaks and valleys with contractors while subcontracting lower-skilled work. However, specifically with respect to line workers, given a constant but potentially increasing backlog of work requests for line workers, a high level of overtime and declining numbers of linemen, coupled with an aging workforce and the need to plan ahead based on a 3-year apprentice program, we offer one overarching recommendation:

> Ameren should update the Open Position Action Plan annually to continue to reflect the workforce needs as specified in the Towers Perrin Work Force Projection Study. Once established, the Open Position Action Plan should be aggressively pursued to increase the electric field workforce.

In addition to the above recommendations, we make a number of other recommendations throughout the report. These have been summarized in Appendix A.

2.0 Introduction

2.1 Background

2.1.1 Philosophy on Outsourcing

Every electric utility is expected to extend its service to meet the needs of a growing population. Power needs to be provided in a reliable, safe, and timely fashion. To maintain high standards of service quality and safety, utility managers traditionally have opted for the control of an in-house workforce. As a result, many utilities historically did not have to rely on outside employees to provide support to its staff or rely on others to meet its customers' needs. However, today many regulated distribution utilities have developed strategies to shift risk, reduce costs, and refocus attention on core functions.

At AmerenIP, outsourcing has primarily sought increased flexibility in addressing fluctuating workload volumes and subcontracting of lower-skilled work. Driven by the need to maintain in-house knowledge of the distribution, and transmission system, and the desire to have first responders be Company staff to ensure quality service, and help preserve brand recognition, the distribution system contractors are primarily used to fill workload peaks and perform lower-skilled work. Currently, about 27% of AmerenIP's distribution system line work is outsourced.

This approach and level of outsourcing represents a moderate amount from our experience, and places certain obligations on the Utility's management as well as impacts on the Utility's workforce. Management must ensure that the quality of the work completed is consistent with customer service standards, that the cost of the work is reasonably similar to what the work would cost if it were performed by the in-house staff, and that high-quality customer service is provided, while the workforce may see a reduction in the total number of employees and in the breadth of job skills.

Refer to Appendix B for a more complete discussion on the utility industry outsourcing philosophy. In Appendix C, we include an overview of the events that occurred during the study period that have helped to shape organized labor at AmerenIP. We provide a brief review of the history of outsourcing and the type of work activities contracted, and we highlight the subcontractor contract language contained in the Company's agreements with the four unions who represent its electric employees.

2.1.2 Service Territory

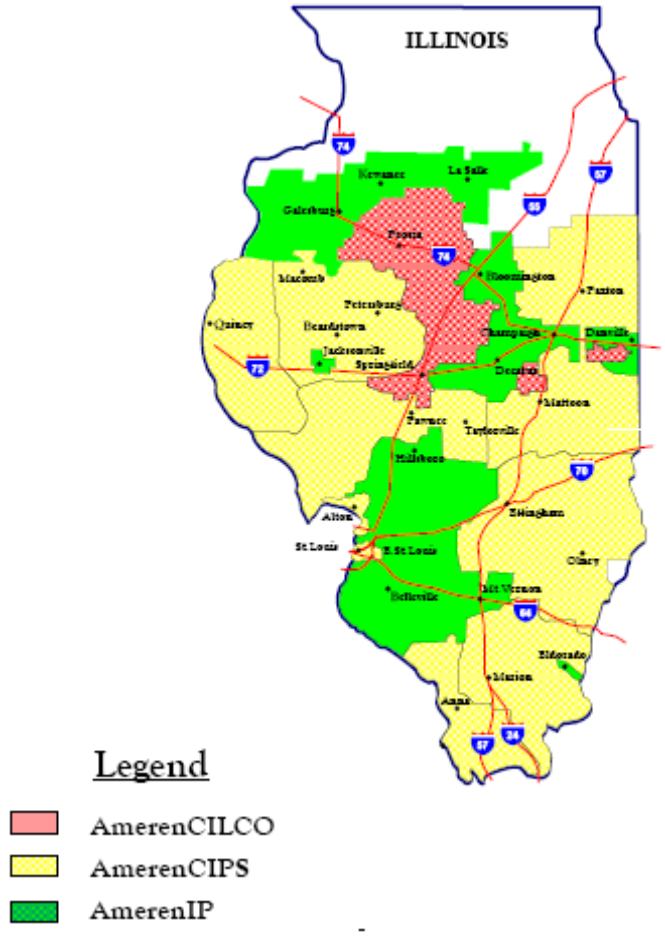
AmerenIP's electric service territory covers 313 incorporated municipalities across 15,000 square miles of central, east central and southern Illinois. AmerenIP provides service to nine cities with populations greater than 30,000, including Danville, Decatur, Belleville, Bloomington-Normal, Champaign-Urbana, Galesburg and Granite City. The majority of AmerenIP's customer

base is located in rural areas and small towns throughout Illinois. Electricity is distributed to nearly 626,000 retail electric customers via 19,000 miles of electric distribution lines. AmerenIP's service territory is illustrated in Figure 1.

AmerenIP's field forces currently operate out of the following 12 active operating centers: Belleville, Mt. Vernon, Hillsboro, Maryville, East St. Louis, Sparta, Bloomington, Champaign-Urbana, Decatur, Galesburg, Jacksonville, and LaSalle.

AmerenIP has one call center located in Decatur that services both gas and electric customers and is moving toward being virtual with AmerenCILCO's Peoria call center and AmerenCIPS' Pawnee call center.

Figure 1 - AmerenIP Service Territory



2.2 Objective and Scope

The Illinois Commerce Commission (ICC, Commission, or Agency) retained Jacobs Consultancy Inc. (Jacobs Consultancy) to conduct a workforce adequacy analysis of AmerenIP, as specified by the Illinois Public Utilities Act, Section 4-602:

> Sec 4-602. Electric utility workforce study
>
> (a) The Commission shall conduct a comprehensive workforce analysis study of each electric utility to determine the adequacy of the total in-house staffing in each job classification or job title critical to maintaining quality reliability and restoring service in each electric utility's service territory. Each report shall contain a yearly detailed comparison beginning with 1995 and ending in 2006 of each electric utility's ratios of:
>
> (1) In-house workers, commonly referred to as "linemen", to customers;
>
> (2) Customer service call-center employees to customers; and
>
> (3) Meter service or repair employees to customers
>
> The ratios shall be reported from each utility's named service area, district, division, outlying area, village, municipality, reporting point, or region. The analysis shall determine the total number of contractor employees for the same timeframe and shall be conducted in the same manner as the in-house analysis.
>
> (b) The Commission may hold public hearings while conducting the analysis to assist in the adequacy of the study. The Commission must hold public hearings on the study and present the results to the General Assembly no later than January 1, 2009.
>
> (c) An electric utility shall bear the costs of issuing any reports required by this Section and it shall not be entitled to recovery of any costs incurred in complying with this Section.

The objective of the study is to determine the adequacy of the total in-house staffing in each job classification or job title critical to maintaining quality reliability and restoring service in the Utility's Illinois service territory. The analysis also examines the total number of contractor employees in the same manner as the in-house analysis. The study is broken down into two tasks:

Task 1 - The first step in determining the adequacy of the Utility's workforce is to compute and compare the yearly workforce ratios during the 1995–2006 timeframe for the pertinent job classifications by service area, district, division, or region.

- **Task 2** - The second step in the study consists of performing a detailed examination of AmerenIP workforce adequacy critical to maintaining quality and reliability, and restoring service in the Utility's Illinois service territory.

As specified in Section 4-602, that critical workforce is defined as:

1. In-house workers, commonly referred to as linemen
2. Meter service or repair employees
3. Customer service call-center employees

2.3 Approach

2.3.1 Workforce Ratio Report

To develop the workforce ratio report, we collected, rationalized, and performed an initial analysis on workforce ratios as specified in the Illinois Public Utilities Act, Section 4-602. In particular, we requested data on the levels of both in-house and contracted staff in each job classification or job title critical to maintaining quality reliability and restoring service by examining workforce levels covering the 1995-2006 time period for:

1. In-house workers, commonly referred to as “linemen”
2. Customer service call-center employees
3. Meter service or repair employees
4. Contracted or outsourced full-time equivalent (FTE) employees for each of the above

Computing the ratio of employees to customers resulted in a very small number that is neither practical nor informative to use to assess workforce adequacy. Instead, we augmented the ratio analysis by calculating the number of customers per employee.

We attempted to compute the ratios by operating center as suggested in Section 4-602 of the Illinois Public Utilities Act, but found too many data inconsistencies to draw any meaningful conclusions. With the changes in Company ownership, organization structure, and integration efforts, AmerenIP operated over the period 1995–2006 with various operating centers. Neither the number of active operating centers nor the division to which they reported was consistent over the time period. As a result, this report will only analyze the ratios for the total AmerenIP workforce.

In this task, we also noted the job classifications included in each ratio analysis and identified the factors that may have affected the changes in the ratios each year.

Our approach to this task was divided into five subtasks as described below.

- **Data Collection—**We collected data emanating from the initial data requests as provided by the Utility and through our research. This information was made consistent, as practicable, and input into our web-based document control facility (eRoom).

- **Initial Analysis/Cleaning—**In this subtask, we performed our initial analysis on the data provided by AmerenIP to support the workforce ratio analysis. We identified any gaps or inconsistencies in the data and identified missing or questionable data. We made appropriate corrections, based on clarifications from AmerenIP, to the data to provide a consistent data set.

- **Additional Data Requests—**Based on our Initial Analysis/Cleaning, we formulated additional specific data requests, data explanations and other information deemed necessary for consistent data. AmerenIP was requested to provide responses to these additional data requests within a 10-day time frame.

- **Data Analysis and Cleaning—**In this subtask, we incorporated the additional data received into our workforce ratio analysis model and continued data cleaning efforts to assure consistent and meaningful baseline workforce ratios to support further analysis.

- **Develop Ratio Report—**Prior to developing the reports, we coordinated with the Agency to define the workforce ratio report format and content. Following this and completion of the Data Analysis and Cleaning subtask, we proceeded to assemble the ratios and develop the final Workforce Ratio Report.

2.3.2 Workforce Adequacy Analysis

The Illinois Public Utilities Act, Section 4-602 states that the study is to "Determine the adequacy of the in-house staffing in each job classification critical to maintaining quality, reliability and restoring service in each electric utility service territory."

The key word to conducting the study, then, lies in the word *adequacy*, which can be defined as the quality of being able to meet a need satisfactorily or the quality of being sufficient for the end in view.[2]

[2] http://www.thefreedictionary.com/adequacy

Applying this definition to the Illinois Public Utilities Act, Section 4-602 suggests that a spectrum of staffing possibilities exists. Extremes range from providing sufficient in-house staffing to permit timely completion of all work requirements responding to normal work load as well as responding to emergencies, with no overtime and no use of external resources to depending heavily upon outside contractors to satisfy normal and emergency workload requirements that a static or shrinking in-house workforce is unable to complete in a timely fashion.

Jacobs Consultancy does not believe that either of these extremes can be proven to be economic or effective considering all stakeholders' interests. We believe that in-house workforce adequacy in the context of the Illinois Public Utilities Act, Section 4-602, should lie in the middle ground and comprise a blend of resources that accomplishes the following:

- Maintain reasonable system reliability and service quality
- Provide a cost-effective solution
- Use outside resources to supplement in-house resources to meet peak workload requirements
- Use outside resources to perform work efforts that require specialized equipment or specialized skill sets that are not economic to maintain in-house
- Permit in-house resources to maintain expertise and knowledge in their core business
- Utilize outside contractors to relieve in-house staff of non-core or non-critical workload
- Provide a reasonable level of regular and overtime opportunities to the in-house workforce
- Use of additional temporary outside resources to supplement in-house workforce and existing contract workers during emergencies

In our workforce adequacy analysis, we examined the existing mix of in-house and contractor workforce in the context of the job functions, level of involvement, and meeting the criteria expressed above. Consequently, we judged the adequacy of the overall workforce on the basis of:

- System performance
- Levels of in-house overtime
- Existing in-house age and skills demographics and workforce plans
- Customer satisfaction statistics
- Workload backlog

We have provided in Appendix B an overview of general outsourcing philosophies and AmerenIP's specific outsourcing philosophy.

To develop the Workforce Adequacy Analysis Report, we collected various related documents provided by the Company, conducted interviews of key individuals, visited several AmerenIP facilities and conducted a visual condition assessment on randomly selected distribution facilities. Specifically, in undertaking this analysis, we conducted 57 interviews with over 100 individuals representing both Ameren Illinois company management and the bargaining units, and reviewed 119 AmerenIP documents.

Our detailed analysis includes comparisons of workforce levels against historical reliability indices as well as preventive and corrective maintenance orders indicative in determining workforce adequacy. Furthermore, during the interview phase of our analysis we interviewed several union officials and bargaining unit members. The union representatives articulated various concerns that added additional focus to our workforce adequacy study.

Our study of AmerenIP's workforce adequacy focused on a number of discrete assessments including:

- **Maintenance and Operations**—In reviewing the operations area, we studied the dispatch function and examined linkages to the call center during normal operations and minor and major outages. We traced handling of outages and work notifications and reviewed emergency escalation procedures and provisioning of emergency operations, troubleshooting, coordination with other emergency agencies, mutual aid arrangements, crew mobilization, and utilization of contractor forces. In reviewing the maintenance function, we focused on maintenance planning, maintenance cycles, maintenance work accomplishments, backlogs, workplace barriers, staffing adequacy, crew sizes, system inspections, vegetation management, use of contractors and quality control. We also examined the level of technology enablers employed to support this function.

- **Training and Safety**—We examined new apprentice and continuing training programs for line workers, meter staff and call center customer service representatives. We sought to observe any training provided to contractors and how their capabilities were assessed. We explored the steps the Utility is taking to attract new line workers. We reviewed the importance of safety in AmerenIP's organization; related training and the safety results achieved and also examined the Utility's safety performance over the 1995-2007 timeframe.

- **Quality Assurance**—The study included a review of the quality assurance and control mechanisms and processes employed by AmerenIP in the distribution function, metering, substations, construction and line work.

- **Distribution System Condition Assessment**—This assessment involved visual observations of AmerenIP's electric distribution facilities through conducting a random spot inspection to determine the condition of the distribution system.
- **Call Center**—We assessed call center metrics, such as call volume, abandonment rates, and call answers statistics to gauge the level of customer support that is present. We reviewed call center changes, such as staffing, training and automation enhancements. We reviewed the process for emergency situations, emergency escalation procedures, public agency communication provisions, and customer satisfaction surveys. We also examined the level of technology enablers employed to support this.

We specifically addressed staffing adequacy in two subsections titled Staffing which are contained in Section 5.1 Operations and Maintenance and Section 5.5 Call Center.

2.4 Report Organization

Section 1.0 Executive Summary provides an overview of Jacobs Consultancy's key conclusions and recommendations. Only those recommendations identified as directly linked to workforce adequacy are presented in the Executive Summary. Several other recommendations are presented in the body of the report.

The main body of the report is divided into two sections: Section 4.0 Ratio Investigation and Section 5.0 Workforce Adequacy Analysis. In the Ratio Investigation section, we include ratio reports for linemen, meter service, and call center employees. In the Workforce Adequacy Analysis section, assessments were conducted and an analysis made into a variety of areas including operations and maintenance, training and safety, quality assurance, distribution system condition and the call center.

The Workforce Adequacy Analysis sections contain a background description for each area and an analysis of specific topics. The Findings presented represent strengths, weaknesses, opportunities and threats, which tie directly into the facts obtained from our interviews and review of documents. The Conclusions summarize and represent our assessment of the related findings and our opinion regarding proposed opportunities associated with a specific topic. In some instances, our conclusions lead to Recommendations.

3.0 Glossary

A glossary of terms is set out below to familiarize the reader with the acronyms and industry terms used throughout this report.

3.1 Abbreviations

ACD	Automatic Call Distributor
AMR	Automated Meter Reading
ASA	Average Speed of Answer
BBS	Behavior Based Safety
CAIDI	Customer Average Interruption Duration Index
CIS	Customer Information System
CSR	Customer Service Representative
CTI	Computer Telephony Integration
DSCADA	Distribution Supervisory Control and Data Acquisition System
ETR	Estimated Time to Restore
eRoom	Web-based document control facility
eWFM	Electronic Workforce Management & Real Time Adherence
FTE	Full-time Equivalent
GIS	Graphic Information System
GPS	Geo Positioning System
HVCA	High Volume Outage Call Answering
IBEW	International Brotherhood of Electrical Workers
ICC	Illinois Commerce Commission
IP	Illinois Power Company
IT	Information Technology
IVRU	Integrated Voice Response Unit
KPI	Key Performance Indicators
LIHEAP	Low Income Home Energy Assistance Program

MDT	Mobile Data Terminals
NESC	National Electrical Safety Code
NJATC	National Joint Apprentice and Training Committee
OJT	On the Job Training
OAS	Outage Analysis System
QA	Quality Assurance
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
T&E	Time and Equipment
WMIS	Work Management Information System
WO	Work Order

3.2 Common Industry Terms

Automated Meter Reading (AMR)	The technology of automatically collecting data from metering devices (water, gas, electric) and transferring that data to a central database for billing and/or analyzing.
Automatic Call Distributor	A telephone facility that manages incoming calls and handles them based on the number called and an associated database of handling instructions.
Average Speed of Answer	The timing for answering the call begins when the call is queued for the ACD queue and ends when an agent (either in the primary or overflow ACD queue) answers the call.
Behavior Based Safety	A wide range of programs which focus almost entirely on changing the behavior of workers to prevent occupational injuries and illnesses.
Capacitor	An electrical/electronic device that can store energy in the electric field between a pair of conductors.
Completely Self Protected Transformer (CSP)	Efficiently and effectively disconnect the load from the transformer under overload conditions.
Customer Average Interruption Duration Index (CAIDI)	A distribution circuit reliability measure that represents the average time required to restore service to the average

	customer per sustained interruption.
Customer Average Interruption Frequency Index (CAIFI)	A distribution circuit reliability measure that can be used to describe trends and customer interruptions by showing the number of customers affected out of the total customer base.
Computer Telephony Integration	The use of computers to manage telephone calls.
Customer Information System	A broad set of customer, location, service, asset and financial information.
Customer Service System	A broad set of customer, location, service, asset and financial information.
Electronic Workforce Management & Real Time Adherence	A suite of call center workforce management software tools.
Energy Management System (EMS)	Electric transmission and generation controls and data acquisition system for managing electric flows on the transmission network and automatically adjusting generation output.
Estimated Time to Restore	Represents the best information available at this time.
Full-time equivalent	Number of total hours worked divided by the maximum number of compensable hours in a work year as defined by law.
High Volume Outage Call Answering	Automatically take customer electric outage telephone calls and create outage service orders that are then electronically delivered directly to the Outage Management System.
Integrated Voice Response Unit	An automated telephony system that interacts with callers, gathers information and routes calls to the appropriate recipient.
Key Performance Indicators	Quantitative measurements that help an organization measure progress towards goals and identify areas for improvement.
Mobile Data Terminals	A computerized device used in vehicles to communicate with a central dispatch office.
National Electrical Safety Code	Standard for the safe installation of electrical wiring and equipment.

National Joint Apprentice and Training Committee	Oversees uniform standards that are adopted and used nationwide to select and train qualified men and women for the electric industry.
On-the-Job Training	Employee training at the place of work while he or she is doing the actual job.
Outage Management System	A computer system used by operators of electric distribution systems to assist in restoration of power.
Quality assurance	Systematic process of checking to see whether a product or service being developed is meeting specified requirements.
Recloser	A circuit breaker equipped with a mechanism that can automatically close the breaker after it has been opened due to a fault.
Regulator	A device which has the function of maintaining a designated characteristic.
Substations	A subsidiary station of an electricity system where voltage is transformed from high to low or the reverse using transformers.
Supervisory Control and Data Acquisition (SCADA)	Electric transmission and generation controls and data acquisition system for managing electric flows on the transmission network and automatically adjusting generation output.
System Average Interruption Frequency Index (SAIFI)	A distribution circuit reliability measure that can be used to describe trends and the average number of interruptions that a customer would experience.
Transformer	A device that transfers electrical energy from one circuit to another through inductively coupled electrical conductors.

4.0 Ratio Investigation

Jacobs Consultancy developed the following three ratio reports as specified in the scope of work. In the Discussion section, we explain in more detail how the data provided by AmerenIP was adjusted and made consistent to develop the appropriate ratios of customers to employees.

4.1 Ratio Reports

4.1.1 Linemen Employee Ratio Report

Table 1 shows the data used to compute the ratios of customers per linemen employee. Figure 2 illustrates the linemen employee ratio trend during the 1995-2006 time frame for both in-house and contractor employees.

Table 1 - AmerenIP Linemen Employee Data

1. Linemen Employee Ratios

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AmerenIP - All Operating Centers												
Number of Customers [1]	551,812	557,638	559,164	567,676	566,055	567,563	575,394	573,475	583,035	599,428	605,279	616,210
Number of Employees [2]												
Lineman	341	276	283	261	276	325	270	274	260	266	286	252
RCP Linemen [3]	0	0	0	24	28	0	34	37	38	31	0	31
Substation	45	61	61	62	61	56	56	57	63	64	59	62
Contract Lineman FTEs [4, 5]	NA	NA	NA	NA	24	29	59	42	104	105	99	103
Contract Substation FTEs [4]	NA	NA	NA	NA	3	3	7	5	12	12	11	11
Total Linemen In-house Employees [6]	386	337	344	347	365	381	360	368	361	361	345	345
Total Linemen Contractor Employees	0	0	0	0	27	32	66	47	116	117	110	114
Total Linemen Employees	386	337	344	347	392	413	426	415	477	478	455	459
Percentage of Linemen In-house Employees	1.00	1.00	1.00	1.00	0.93	0.92	0.85	0.89	0.76	0.76	0.76	0.75
Percentage of Linemen Contractor Employees	0.00	0.00	0.00	0.00	0.07	0.08	0.15	0.11	0.24	0.24	0.24	0.25
Ratios [7]												
Customers to Linemen In-house Employees	1,430	1,655	1,625	1,636	1,345	1,268	1,141	1,225	925	947	1,009	1,009
Customers to Linemen Contractor Employees	0	0	0	0	99	106	209	157	297	307	322	333
Customers to Total Linemen Employees	1,430	1,655	1,625	1,636	1,444	1,374	1,351	1,382	1,222	1,254	1,330	1,343

Source: DR-009, DR-020, DR-122

Notes:

NA = Not available

[1] Reflects average number of customers per month based on FERC Form 1.

[2] Employee data represents AmerenIP's best efforts estimate of the end of year staffing levels.

[3] These linemen are part of the Regional Construction Point (RCP) or job site reporting construction crews.

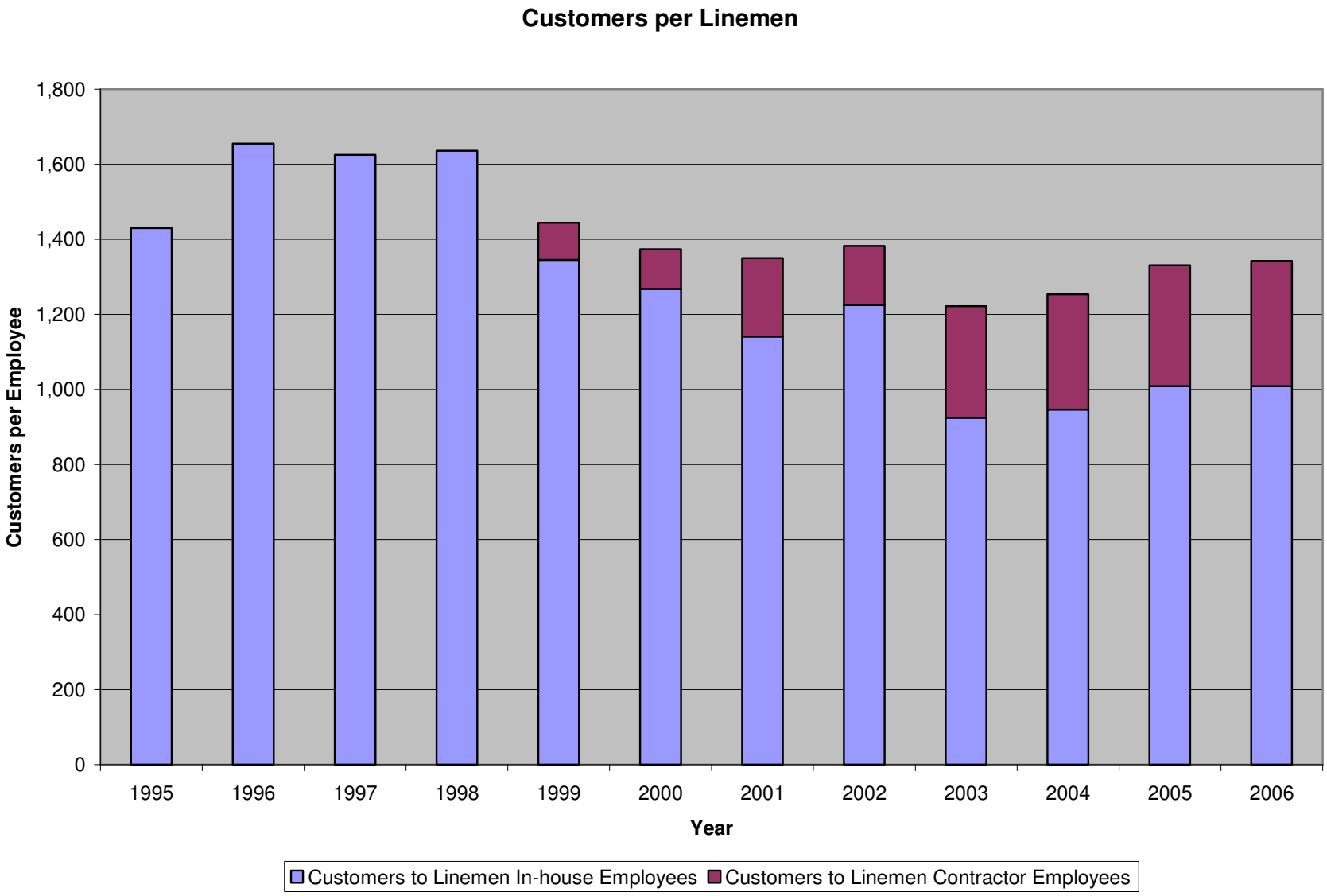
[4] Contractor invoice data for 1999-2006 was provided on an annual basis. These invoice amounts also included the spend for contractor meter readers so the estimated payments for contractor meter reading service was subtracted and the remaining spend was split 90% for line and underground construction work and 10% for substation work. A rough estimate of contractor staffing levels was developed by utilizing $90/hr for 2005/2006 and dividing by 2080 hours. FTE equivalents less than 1 are not included in the ratio analysis.

[5] Contract Linemen in 1999 includes JF Electric and LE Myers; 2000 and 2001 include only JE Electric and LE Myers charges; 2002- 2006 includes charges from Miller Construction, EMC Electric, JF Electric, JF Edwards, LE Myers, and PAR Electrical; LE Myers and JF Electric charges would include the cost of line work as well as meter reading in various years. All amounts are based on best data that could be obtained. Dollar amounts for 1999-2001 appear to be lower than actually may have been.

[6] Total Linemen In-house Employees does not include field operations Supervisors, Managers, General Managers, Directors, Vice President, or President.

[7] The ratio of customers to employees is calculated instead of employees to customers as specified by Illinois Public Utilities Act, Section 4-602.

Figure 2 - AmerenIP Customers per Linemen Ratios



4.1.2 Call Center Employee Ratio Report

Table 2 shows the data used to compute the ratios of customers per call center employee. Figure 3 illustrates the call center employee ratio trend during the 1995–2006 time frame for both in-house and contractor employees.

Table 2 - AmerenIP Call Center Employee Data

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Decatur Call Center												
Electric Customers [1]	551,812	557,638	559,164	567,676	566,055	567,563	575,394	573,475	583,035	599,428	605,279	616,210
Gas Customers [1]	387,688	392,533	393,877	399,871	398,225	399,039	401,377	399,175	392,364	413,686	415,323	418,388
Total Customers [2]	939,500	950,171	953,041	967,547	964,280	966,602	976,771	972,650	975,399	1,013,114	1,020,602	1,034,598
Number of Employees [3]												
Customer Service Representatives [4]	143	172	152	157	167	148	141	134	143	149	138	128
Total Call Center In-house Employees [5]	143	172	152	157	167	148	141	134	143	149	138	128
Total Call Center Contractor Employees [6]	0	0	0	0	0	0	0	0	0	0	30	47
Total Call Center Employees	143	172	152	157	167	148	141	134	143	149	168	175
Percentage of Call Center In-house Employees	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.73
Percentage of Call Center Contractor Employees	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.27
Ratios [7]												
Customers to Call Center In-house Employees	6,570	5,524	6,270	6,163	5,774	6,531	6,927	7,259	6,821	6,799	4,990	4,324
Customers to Call Center Contractor Employees	0	0	0	0	0	0	0	0	0	0	1,085	1,588
Customers to Total Call Center Employees	6,570	5,524	6,270	6,163	5,774	6,531	6,927	7,259	6,821	6,799	6,075	5,912

Source: DR-009, DR-020, DR-124

Notes:

[1] Reflects average number of customers per month based on FERC Form 1 and ICC Form 21.

[2] Call center employees handle all customer service calls, including both electric and gas customers. Therefore, the ratio analysis uses the total AmerenIP customer count instead of only the AmerenIP electric customers.

[3] AmerenIP converted to new Customer Information Suite of systems in October 2005 requiring more personnel to get through the conversion.

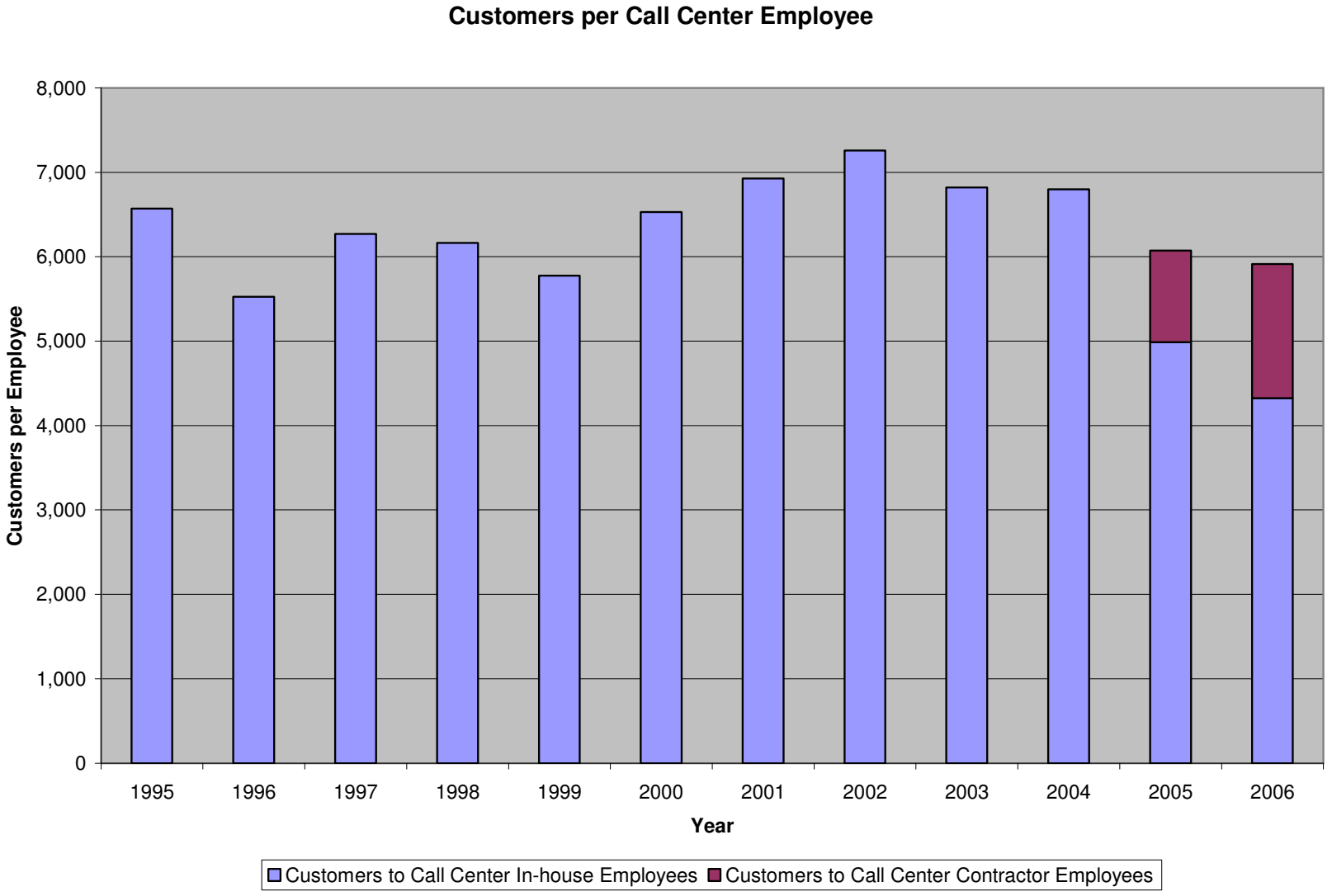
[4] Customer Service Representatives also include several individuals that undergo training before AmerenIP potentially offers them permanent employment. At various times there is a jump in CSR's because of new hire classes.

[5] Total Call Center In-house Employees includes Customer Service Representatives but does not include Supervisors, General Supervisors, Managing Supervisors, Manager, Director, or VP.

[6] AmerenIP Call Center did not use contract employees prior to 2005.

[7] The ratio of customers to employees is calculated instead of employees to customers as specified by Illinois Public Utilities Act, Section 4-602.

Figure 3 - AmerenIP Customers per Call Center Employee Ratios



4.1.3 Meter Service Employee Ratio Report

Table 3 shows the data used to compute the ratios of customers per meter service employee. Figure 4 illustrates the meter service employee ratio trend during the 1995–2006 timeframe for both in-house and contractor employees.

Table 3 - AmerenIP Meter Service Employee Data

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AmerenIP - All Operating Centers												
Number of Customers [1]	551,812	557,638	559,164	567,676	566,055	567,563	575,394	573,475	583,035	599,428	605,279	616,210
Number of Employees [2]												
Meter Readers	190	195	192	148	167	167	132	156	140	140	139	133
Meter Shop Testers/Support [3]	20	15	16	21	19	19	14	18	18	18	15	15
Contract Meter Reader FTEs [4]	0	0	18	41	35	30	33	27	27	40	89	84
Total Meter Service In-house Employees [5]	210	210	208	169	186	186	146	174	158	158	154	148
Total Meter Service Contractor Employees	0	0	18	41	35	30	33	27	27	40	89	84
Total Meter Service Employees	210	210	226	210	221	216	179	201	185	198	243	232
Percentage of Meter Service In-house Employees	1.00	1.00	0.92	0.80	0.84	0.86	0.82	0.87	0.85	0.80	0.63	0.64
Percentage of Meter Service Contractor Employees	0.00	0.00	0.08	0.20	0.16	0.14	0.18	0.13	0.15	0.20	0.37	0.36
Ratios [6]												
Customers to Meter Service In-house Employees	2,628	2,655	2,277	2,175	2,156	2,263	2,622	2,470	2,692	2,416	1,579	1,694
Customers to Meter Service Contractor Employees	0	0	197	528	406	365	593	383	460	612	912	962
Customers to Total Meter Service Employees	2,628	2,655	2,474	2,703	2,561	2,628	3,214	2,853	3,152	3,027	2,491	2,656

Source: DR-009, DR-020, DR-122

Notes:

[1] Reflects average number of customers per month based on FERC Form 1.

[2] Employee data represents AmerenIP's best efforts estimate of the end of year staffing levels.

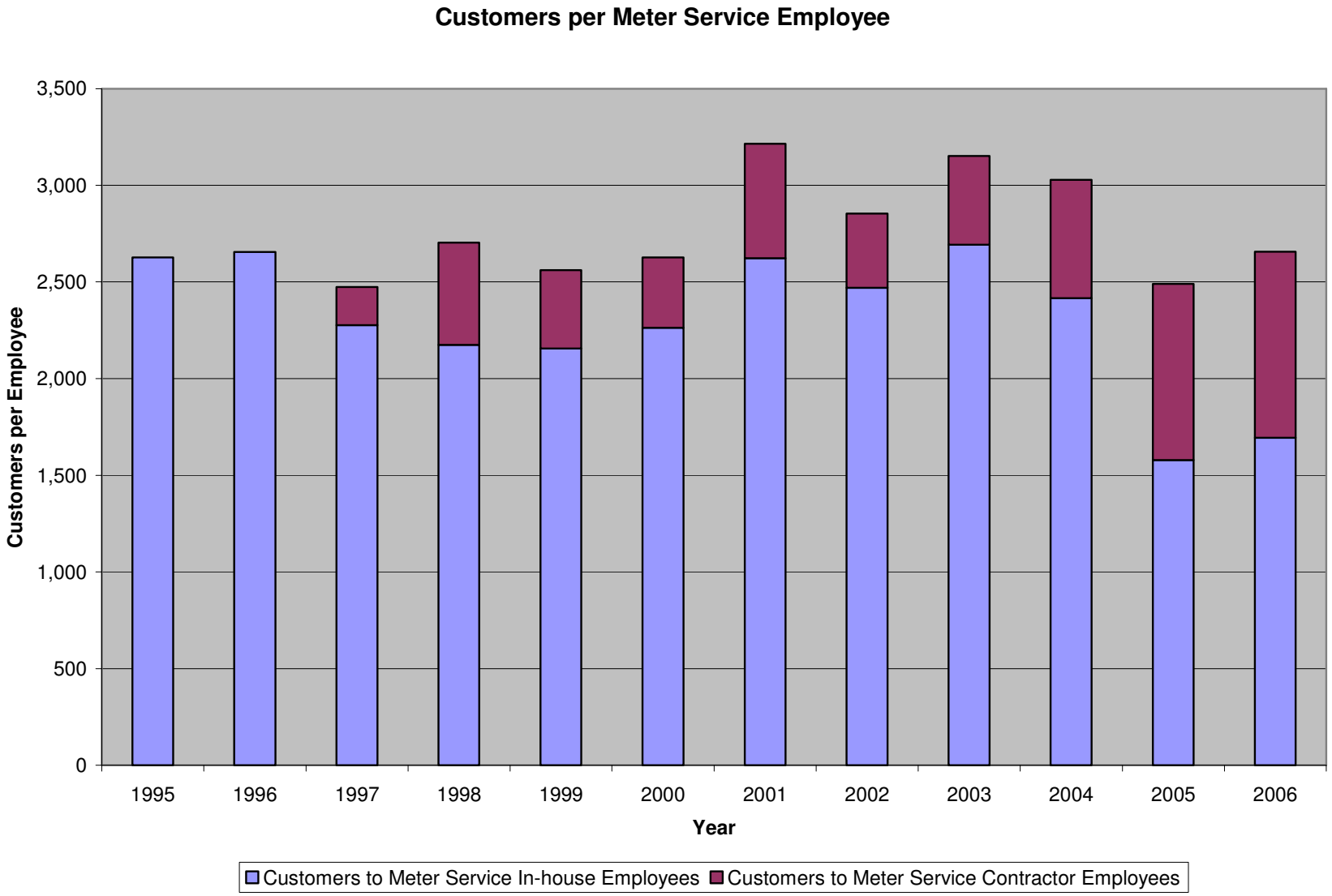
[3] Meter Shop Testers/Support employees include Electric Shop Foreman, Meter Team Leader, Electric/Gas Meter Repairman, Electic Journeyman, Meter Shop Lab Tech, Meter Shop Storehouseman, and Testboard Operator.

[4] AmerenIP's best estimate of contractor meter readers. Contractors were not used prior to 1997.

[5] Total Meter Service In-house Employees does not include meter shop Supervisors, Managers, Directors, or Vice President.

[6] The ratio of customers to employees is calculated instead of employees to customers as specified by Illinois Public Utilities Act, Section 4-602.

Figure 4 - AmerenIP Customers per Meter Service Employee Ratios



4.2 Discussion

In developing the ratios of customers to employees, we reviewed the staffing level data AmerenIP provided by job classification, in-house employees, and contractor employees at year end for each year during the 1995-2006 time period and made several adjustments to make the ratios consistent and easier to interpret.

4.2.1 Linemen Employee Ratios

The current Ameren Illinois organizational structure of six operating divisions includes AmerenIP in all six divisions. AmerenIP's field forces currently operate out of the following 12 active operating centers: Belleville, Mt. Vernon, Hillsboro, Maryville, East St. Louis, Sparta, Bloomington, Champaign-Urbana, Decatur, Galesburg, Jacksonville, and LaSalle. During the 1995-2006 timeframe, AmerenIP's divisions were re-aligned several times and smaller offices were consolidated. Known consolidations during this period include Granite City with Maryville, Eldorado with Mt. Vernon, Ottawa with LaSalle, Mt. Clare with Hillsboro, Riverbend with Maryville, Kewanee with Galesburg, Danville with Champaign, Centralia with Mt. Vernon, East St. Louis, Columbia and Trenton with Belleville. Subsequently, Kewanee and Danville have become separate offices. Mt. Vernon and Centralia have crew reporting sites.[3]

AmerenIP's in-house line crews are typically assigned work by operating center, which covers a specific geographic area. Any crew may be assigned work in that operating center's geographic area of responsibility. Service trucks, metering and electric one man trucks are assigned work with grids, which are a further break down of the operating center's geographic area.

In-house Regional Construction Point (RCP) or job site reporting construction crews are generally assigned larger construction projects with the geographic boundaries of their assigned service center. However, the Company has the flexibility to send them to other areas if necessary.

Outsourced line crews are typically assigned work based on geographic need or by specific project. An outsourced crew typically works in one division on a project or multiple projects until the projects are finished. They then may be assigned a project or multiple projects in the area of a neighboring operating center or released.[4] This makes it difficult to report contractor staffing levels by operating center.

Due to these inconsistencies in data and the consolidation of operating centers, calculating the ratios by operating centers does not help draw any meaningful conclusions. As a result, the

[3] DR-020

[4] DR-008

linemen employee ratios were calculated based on the total AmerenIP customers and linemen employees each year.

The total number of AmerenIP customers each year is based on the average number of customers per month reported by the Utility on FERC Form 1.

The Total Linemen In-house Employees is the sum of the Linemen, RCP Linemen and Substation employees. Field operations supervisors, managers, general managers, directors, vice presidents, and president are not included in the in-house employee counts.

The Total Linemen Contractor Employees is the sum of the Contract Linemen FTEs and Contract Substation FTEs. Contractor invoice data for 1999-2006 was provided on an annual basis. These invoice amounts included the cost for line work as well as meter reading and substation work. As a result, the estimated payments for contractor meter reading services was subtracted and the remaining spend was split 90% for line and underground construction work and 10% for substation work.[5] A rough estimate of contractor linemen staffing levels was developed by utilizing $90/hr for 2005/2006 and dividing by 2080 hours/year. Previous years' contractor staffing levels were developed by reducing the $90/hour by 3% per year. Data for years 1995-1998 was not available.[6] All contractor invoice amounts are based on the best data available. However, AmerenIP noted that the dollar amounts for 1999-2001 appear to be lower than they would have anticipated, so it is possible more contractors were utilized in those years than indicated in Table 1.

The Total Linemen Employees is the sum of the Linemen In-house Employees and the Linemen Contractor Employees. Using the percentage of in-house employees versus contractor employees, the ratios of customers to employees in these two categories were calculated and summed together to get the overall customers per employee ratios.

As depicted in the customer to linemen employee ratio trend in Figure 2, the total overall customers per linemen ratio has been gradually decreasing since 1998. Since linemen contractor data prior to 1999 was not available, we cannot quantify the use of contractors before that time; however, the Company indicates they were used. The data in subsequent years reflect continuous and increased use of contractors, resulting in the use of fewer in-house linemen even though the overall linemen resources per customers have increased. In 1999, approximately 7% of linemen employees were contractors and by 2006, that percentage grew to about 25%. The increase in contractor line construction and substation work during 2003-2006 reflects the use of contractors for major storm restoration activities and remedial work to maintain the aging AmerenIP system.

[5] DR-122

[6] DR-009

Several of the dips in total in-house employees can be attributed to events that impacted staffing levels Company-wide. From 1995, Illinois Power had an early retirement offering to coincide with a restructuring effort. The results can be seen in the reduction of staffing numbers from 1995 to 1996. As part of the Dynegy acquisition in 2000, an early retirement and severance program was offered; this resulted in 273 employees being either terminated or retiring at the end of the year. An additional 13 employees were terminated or retired by the end of 2001. After Ameren completed its acquisition of Illinois Power in 2004, 228 AmerenIP employees accepted a Voluntary Separation Opportunity (VSO) which provided an enhanced separation benefit. Of those, eight left in 2004 and the rest in 2005. On April 1, 2005, 341 employee positions were transferred to Ameren Service (AMS), including 96 who had elected the VSO. In addition to VSO-related reductions and transfers, another 20-30 positions were eliminated in connection with the acquisition by Ameren during 2004 and 2005. Most of these position eliminations were related to voluntary departures outside the VSO, and all positions were non-union positions.[7]

4.2.2 Call Center Employee Ratios

Since AmerenIP's Decatur call center serves both electric and gas customers across its entire service territory, we used the total AmerenIP customer count (instead of only AmerenIP electric customers) in computing the ratios of call center employees to customers.

The Total Call Center In-house Employees is the sum of the customer-facing employees, and in the case of AmerenIP's call center, these only include Customer Service Representatives (CSRs). AmerenIP Customer Service Representatives are brought on as probationary employees and become permanent employees after 6 months, if they meet the Ameren requirements. The call center employees in the following job classifications are not included in the ratio analysis: supervisors, general supervisors, managing supervisors, manager, director, and vice president.

The AmerenIP call center did not use contract employees prior to 2005.[8] The Call Center Contractor Employees are provided through Contract Resources from the North Carolina Live Agent shop. These contract employees are not generally used for overflow calls, but are instead assigned to handle special types of calls such as turn on/turn off or delinquent accounts.

The Total Call Center Employees is the sum of the Call Center In-house Employees and the Call Center Contractor Employees. Using the percentage of in-house employees versus contract employees, the ratios of customers to employees in these two categories were calculated and summed together to get the overall customers per employee ratios.

[7] DR-020

[8] DR-124

As depicted in the call center employee ratio trend in Figure 3, AmerenIP's ratio of customers per call center employee remained fairly stable during the 1995-2006 timeframe, ranging from approximately 5,500 to about 7,200 customers per employee. The total call center employees increased slightly in 2005 and 2006, resulting in more call center resources per customer. This change in the ratio can be attributed to AmerenIP converting to a new Customer Information Suite of Systems in October 2005, thus requiring more personnel to get through the conversion.

4.2.3 Meter Service Employee Ratios

Most of the meter service employees serving Illinois also report to the AmerenIP operating centers, as listed above in the Linemen Employee Ratios section. As previously discussed, the changes in operating centers and the lack of consistent data by operating center for the 1995-2006 timeframe makes it difficult to draw meaningful conclusions when the workforce ratios are calculated by operating center. As a result, the meter service employee ratios were calculated based on the total AmerenIP customers and metering employees each year.

Meter service employees consist of personnel from the following job classifications: meter reader, electric shop foreman, electric/gas meter repairman, electric journeyman, meter shop lab tech, meter shop storehouse man, and test board operator. Metering supervisors, managers, directors and vice president are not included in the in-house employee counts.

The Total Meter Service In-house Employees is the sum of the meter employees in the job classifications listed above. Total Meter Service Contractor Employees only include contract meter readers. Contractor meter readers were not used prior to 1997. No contractor meter repair employees worked on AmerenIP properties during the 1995-2006 period.

The Total Meter Service Employees is the sum of the Meter Service In-house Employees and the Meter Service Contractor Employees. Using the percentage of in-house employees versus contractor employees, the ratios of customers to employees in these two categories were calculated and summed together to get the overall customers per employee ratios.

As depicted in the meter service employee ratio trend in Figure 4, the overall total customers per meter service employee ratios have fluctuated during the 1995-2006 timeframe. Changes in AmerenIP's meter reading philosophies are the reasons for the significant change in meter reader counts during this period. In mid-2000, AmerenIP made the decision to meet only the minimum requirement of providing an actual meter read on a bi-monthly basis, resulting in fewer meter service resources per customer. In late 2004, as a condition of Ameren acquiring IP, an agreement was made to make a concentrated effort to provide actual reads on a monthly basis.[9] This changed the ratio of customers per meter service employee back to approximately the level it was at in 1995.

[9] DR-122

The ratio analysis also shows that total in-house meter service employees have gradually decreased and been replaced by contractor employees. In 1998, Illinois Power began an automated meter reading (AMR) program that led to reduced in-house meter reading staff. Full-time meter reading resources were kept by supplementing with contract meter readers. However, that program was cancelled in 2000. The Company began a second AMR program in 2006 which has led to reductions to in-house meter reading staff through attrition.[10]

4.3 Conclusions

AmerenIP has consistently and increasingly utilized outsourcing to augment its linemen, call center employees and meter service workforce throughout the 1995-2006 timeframe.

- The total overall customers per linemen ratio has been gradually decreasing since 1998, thus providing more linemen resources per customer.
- Since 1999, the first year that the number of linemen contractor employees could actually be quantified, the use of contract linemen have been continuous and increasing, resulting in the use of fewer in-house linemen.
- Prior to 2005, AmerenIP's call center did not use contract employees.
- The total overall ratio of customers per call center employee remained fairly stable during the 1995-2006 timeframe; however, the total call center employees increased slightly in 2005 and 2006 due to AmerenIP converting to a new Customer Information Suite of Systems in October 2005.
- Changes in AmerenIP's meter reading philosophies are the reasons for the fluctuations in the customers per meter service employee ratios during the 1995-2006 timeframe.
- AmerenIP's general philosophy with meter service employees has been to replace in-house employees with contractors as necessary, particularly in anticipation of the automatic meter reading programs in 1998 and 2006.

In general, it appears AmerenIP has sought to maintain an adequate workforce by balancing a decreasing number of in-house employees with an increasing number of outsourced employees.

[10] DR-020

5.0 Workforce Adequacy Analysis

Jacobs Consultancy assessed the areas specified in the scope of work. For each assessment area, we present our analysis in the form of findings, conclusions, and recommendations, as appropriate.

5.1 Operations and Maintenance

5.1.1 Background

Operations

AmerenIP's electric control center is located in Decatur, Illinois. The electric and gas functions are divided and handled by different personnel. Distribution is defined as voltages under 100 kV, and the Company has 62 substations equipped with Remote Terminal Units (RTUs). Distribution control has two key goals:

1. Operate the system reliably and safely; including high voltage (HV) switching, load monitoring, etc., and
2. Storm restoration including system recovery from widespread outages

The Energy Management System (EMS)/Supervisory Control and Data Acquisition (SCADA) system reaches down to 34.5 kV for monitoring and control, and all of AmerenIP's sub-transmission lines are monitored. At the distribution level, almost no SCADA monitoring or control exists. The majority of the Company's distribution substations are designed with single-phase reclosers and single-phase voltage regulators, neither of which is cost effective to remotely monitor and control. Without better penetration of SCADA in the distribution system, the outage analysis system (OAS) will not be able to rapidly group related outage calls to the device that has operated and longer restoration times may result.

The control center's communication is mainly via radio, with cell phones for back-up and for areas where radio communications are not reliable. AmerenIP has recently completed the implementation of piggy-backing on the state police radio system, and at this time, believes all dead areas have been eliminated. Currently, there are mobile data terminals (MDT) in first responders' vehicles, so they can review all work orders and determine if a larger crew is needed. If so, they transfer the work to the work management system (WMS).

The control center has interface with the call center through:

- Direct and automated linkages with Customer Information System (CIS)
- Live Customer Service Agent calls

- High Volume Outage Call Answering System (HVCA), which is linked to the OMS for status and estimated time to restore (ETR)

AmerenIP participates in Edison Electric Institute (EEI) Midwest mutual assistance, a group of utilities covering three North to South zones. The initiating utility will request a conference call to discuss crew availability, materials and specific needs during emergencies, or in anticipation of emergencies. The responding utility will usually also send supervisors, safety personnel, trucks and mechanics for equipment.

Distribution Design Center

AmerenIP has used a Distribution Design Center (DDC) concept to perform field engineering in a centralized fashion for a number of years. Initially, there were two DDC locations; however, in 2003 the Company centralized this function to a single DDC located in Belleville. The work process is described in the following:

- Each Field Engineering Representative (those both at DDC and at the Operating Centers) undergoes an intensive 7,200 hour apprentice-like training comprised of 3 week modules (6 total modules) interspersed with field work. At the conclusion, they are basically trained as a journeyman, but without the shop card.
- Work comes in from the call center group (construction calls). These are referred to the technical team to make customer appointments. The DDC Technical team has access to field representatives' Outlook calendars and immediately books the appointment.
- The field representative meets with the customer and becomes basically the project manager for that customer's project. The field representative prepares field notes, which are sent to DDC Technical team for design.
- The DDC uses Framme (Intergraph) for design. The system has compatible material units, and these are selected and passed onto DOJM to schedule the work. They also define the billing rules. This information (via DOJM) goes to St. Louis for initiating the customer invoice. Billing is derived from estimates, except for state road jobs over $100,000, in which case actual costs are used. This design process takes about one week at the outside.
- When work is completed, crews mark documents with actual build and materials used. This information goes back to the Operating Center where a clerk enters the data into DOJM. The job is then returned to DDC where it is posted to the mapping system. This close-out process is budgeted at 45 days but typically is completed within 20-25 days.
- Ten years ago, cost estimates were found to be about 15% higher than actual, and the Company made an across the board estimate reduction of 15%. AmerenIP built a

database, driven by the old IP work management system (MIS), to capture actual costs and provide a method to adjust estimates. Today, MIS is not used and the ability to track actual costs has been lost when contractors complete the work.

- Each DDC job is reviewed prior to being sent to the field.
- DDC handles about 400-450 jobs monthly and typically has a one week backlog.
- DDC has 21 designers and 8 poster/mappers.
- In order to enhance quality, DDC recently added a "Quality" block to drawings to track buildability. If this block is checked or if costs exceed 10% or if the one-line is red-lined, the job receives a full investigation.
- Maintenance work is directed to the DDC by the operating centers, and the work is processed in the same manner.
- The DDC designs for both gas and electric. There are several specialty groups such as 34.5 kV or gas meter sets.
- DDC also issues all joint pole agreements.
- DDC prioritizes its workload according to need and timing, i.e., NESC window commitments.
- DDC has very low turnover – most that leave go to other Ameren departments.

Regional Construction Point Program

- AmerenIP has developed a roving construction crew concept in its Regional Construction Point (RCP) program. These crews report directly to job sites and unlike regular line crews, the RCP crews are not pulled off these jobs to handle other work. This allows them to focus on continuous completion of projects.
- The Company has the following 3-man RCP crews:
    - Northern area: 5 electric and 2 gas crews
    - Southern area: 6 electric and 2 gas crews in the South
- AmerenIP IBEW Locals 51, 309 and 702 agreed with the concept.
- An RCP crew can be laid-off if it is not competitive with contractors, but prior to being acquired IP stated they performed a review and found the RCP crews were competitive with contractors.

Maintenance

To properly assess workforce adequacy, we examined the maintenance function with a focus on maintenance planning/cycles' maintenance accomplishments, backlogs, work effort barriers, field worker adequacy, crew sizes, system inspections, vegetation management, and the use of contractors, quality control, distribution system condition and technology enablers.

5.1.2 Findings

Maintenance Planning

- AmerenIP's maintenance initiative descriptions and schedules are described below:
    - **Weekly Reliability Review Process**—This process was initiated in 2006. The purpose of this program is to systematically identify, review and repair the facilities that caused devices to experience multiple (three or more) interruptions in the past 12 months.
    - **Tap Fusing Program**—This program began in 2003 as a result of recommendations presented in a reliability improvement study. The program is intended to identify, rank and systematically address all economical tap fusing opportunities. The economics are derived using a factor known as System Avoided Cost Factor (SACF), which represents the cost per kVA-hr of avoided customer outages. AmerenIP has spent $499,689 in 2006 and budgeted $799,214 in 2007 on this program.
    - **Direct Buried Cable Replacement**—This program is aimed at replacing underground cables that have experienced excessive failures. In particular, the program will require:
        - Replacement of individual sections after four failures in a lifetime, or three failures in a lifetime if two occurred within a 12-month period.
        - Replacement of all or a subset of the cable sections for an average failure rate of 0.6 failures/section within a 3-year period, or a total of six failures, among all cable sections, within a 3-year period.
    - **Distribution Feeder Design**—In 2005, Ameren developed a common distribution feeder design document that was distributed to all Ameren Illinois Utilities.[11] The document sets out the common design parameters and refers to Ameren Construction Standards as the detail reference material. AmerenIP is still in the process of fully transitioning to the new standards.

[11] DR-007

- **Animal Protection**—The animal protection program is intended to provide additional protection on existing overhead distribution transformers that have experienced animal-related outages. In addition, all new overhead distribution transformers will be fitted with animal protection as needed.

- **ICC Worst Performing Circuits**—This program has been in place for a number of years. AmerenIP's new process for handling the program was implemented in 2007. The program is intended to ensure circuits that appear on the worst performing circuits list of the ICC annual self-assessment receive the appropriate level of review and remedial action. A circuit will appear on this list if it is among the worst 1% of all circuits in an operating area based on reliability indices. These circuits will be inspected and the results recorded on the Circuit and Device Inspection System (CDIS) for tracking, review and remediation. Corrective action will then be entered into the Distribution Operations Job Management (DOJM) work management system.

- **Storm Normalized Worst Performing Circuits**—In 2007, Ameren Illinois Utilities analyzed an additional set of worst performing circuits based on removing outage data that occurred on days considered to be "major event days" based on Institute of Electrical and Electronics Engineers, Inc (I.E.E.E.) Major Event Day (MED) definitions. The intent was to further identify circuits that experience poor performance under non-major event conditions.

- **Circuit Inspection Programs**—AmerenIP has a 4-year cycle for circuit inspections and has incorporated the ICC-mandated National Electric Safety Code (NESC) inspection in the process.[12] The inspection programs are summarized in the following table.

[12] DR-044 (DR-347A)

Table 4 - Circuit Inspection Program

Type of Inspection	Facilities Inspected	Cycle Length
Complete overhead circuit inspection and attachment survey	Subtransmission and distribution circuits. All foreign company attachments. Check clearances for NESC compliance	4 years
Inspections by tree trimmers	Subtransmission and distribution circuits and all associated hardware	4 years
Subtransmission circuits	Subtransmission circuits	2 years
Aerial infrared inspections	Subtransmission circuits	as needed
Pole inspection and treatment	Subtransmission and distribution circuits	12 years
Capacitor inspections	Capacitors	1 year
Regulators inspection / reading	Voltage regulators	6 month
Line recloser inspection / reading	Line reclosers	6 month
UG network inspections	Network transformers and protectors	1 year
Field personnel as-found reports	All facilities items reported	as found

- **National Electrical Safety Code Corrective Action Plan**—A complete circuit inspection identifying all NESC and reliability deficiencies will be conducted on all Illinois distribution circuits during 2008-2011, with all corrective actions to be completed by 2012. In addition, a ground line inspection will be conducted annually on all poles on circuits identified that year for inspection. Corrective actions will be completed based on AmerenIP's National Electrical Safety Code Corrective Action Plan filed with the ICC.

- **Circuit Breaker Maintenance**—Oil circuit breakers (OCB) operating at less than 34.5 kV are serviced every 36 months. This includes contact resistance tests, oil dielectric tests, operations checks and mechanism lubrication. These breakers are overhauled every 108 months or after 12 full fault trips. OCBs for capacitor bank switching are inspected every year. Other breaker types, including sulphur-hexaflouride (SF6), air blast and vacuum, are maintained on a 1-5 year basis depending on type.

- **Recloser Maintenance**—Single-phase reclosers are replaced every 5 or 10 years for oil or vacuum interrupting media, respectively, and removed units are refurbished for re-use. Three-phase reclosers are serviced every 3 or 6 years for oil or vacuum, respectively. Internal inspections may be triggered more frequently depending on performance.

- **Regulator Maintenance**—Single phase regulators have at least a 3-year operations, oil dielectric and acidity check. The results of these checks may indicate a required overhaul.
- **Switch Maintenance**—Aside from infrared scans and visual inspections, AmerenIP's switches are not typically scheduled for maintenance.
- **Transformers**—Transformers with high side below 138 kV are tested every 3 years for oil dielectric, oil acidity and head space gas. These are inspected every 10 years for more in-depth tests.
- **Substations**—AmerenIP uses a combination of time-based, condition-based, preventative and predictive substation maintenance programs. These programs are coupled with its reliability-centered maintenance philosophy that examines failure modes and directs corrective and preventative maintenance.
- **Vegetation Management** [13] —AmerenIP performs routine maintenance line clearance tree trimming on a 4-year cycle. Mid-cycle trimming is scheduled based on the results of mid-cycle patrols conducted by contractor general foremen, AmerenIP vegetation supervisors, and contract job planners and contract trip crew staff. Tree trimming is outsourced and competitively bid.

Crew Scheduling[14]

- Within AmerenIP, all in-house systems crews are assigned work by the operating center. Each operating center covers a geographic area. Any crew may be assigned work in that operating center's geographic area of responsibility. Service trucks, metering and electric one man trucks, are assigned work within grids, which are a further breakdown of the operating center's geographic area.
- In-house RCP crews are generally assigned larger construction projects within the geographic boundaries of their assigned service center. However, the Company has the flexibility to send them to other areas if necessary.
- Outsourced crews are assigned work based on the area of need. An outsourced crew may work in one operating center on a project or multiple projects until the projects are finished. They then may be assigned a project or multiple projects in the area of a neighboring operating center depending on the need.
- AmerenIP has negotiated contractual changes with represented labor that has helped to facilitate the change to a divisional functional organization[15]. These include:

[13] DR-005

[14] DR-008

  - Emergency response by the closest available resource regardless of company or union affiliation
  - Expanded geographic areas of responsibility for metering, substation and relay workers
  - Unrestricted contracting on circuit inspections
  - Unrestricted contracting non-pay disconnects and reconnects
  - Supply specific storerooms across company lines
  - Unrestricted contracting specific AMR work
- Forestry crews are outsourced and are typically assigned by circuits that are scheduled for vegetation management in the upcoming trim cycle.
- In-house substation crews are assigned by division and outsourced substation crews are assigned by project.
- AmerenIP supplements Company crews with contractor crews. The numbers of support contractors vary as required to meet the peaks and valleys of workload.
- Shifts—AmerenIP crews, troublemen, metermen and substation journeymen currently work a standard 7:00 am to 3:15 pm shift Monday to Friday.[16]
- Ameren IP electric shift schedules - Throughout the AmerenIP system, electric crews and one-man trucks work the following shifts:
  - System electric crews – 7:00 am - 3:15 pm Monday - Friday, 7:00 am - 3:15 pm Tuesday – Saturday.
  - RCP electric crews – 6:00 am - 4:00 pm Monday - Thursday, 6:00 am - 4:00 pm Tuesday – Friday.
  - Emergency troublemen – 6:00 am - 2:00 pm, 2:00 pm - 10:00 pm Monday - Friday with call coverage split at 2:00 am.
  - One man service trucks – 7:00 am - 3:15 pm Monday - Friday, Tuesday - Saturday, Sunday - Thursday (only one).
  - Outlying trouble trucks – 7:00 am - 3:15 pm Monday - Friday, Tuesday - Saturday. They are the first call for anything in their outlying areas 24/7.
  - First Responders – first call for non-outlying areas during off hours on the weekends.

[15] DR-087

[16] DR-040

- Ameren IP metering and substation shift schedules - 7:00 am - 3:15 pm Monday - Friday (12 counties meter changers work to 3:30 pm).
- With respect to field operations, external resources are not used to supplement in-house crews for off-shift hours during normal operations. The exception is external resources are used to perform emergency locating services for marking the locations of underground facilities.[17]

Use of In-House Crews vs. Contractors[18]

- In general, for the 1995 to 2006 time period, line construction core business activities were assigned to the AmerenIP in-house workforce first. Contractor crews were used to shave peaks and/or complete projects that are of a larger scale, require special equipment or skills (such as larger directional boring or excavation equipment, larger cable stringing equipment, concrete conduit encasement, etc.) that would otherwise tie-up AmerenIP resources for an extended period of time, or require extensive travel from one of AmerenIP's fixed operating centers. In the late 1990s, Illinois Power began using in-house RCP construction crews. These crews would report directly to the job site and generally work on larger jobs that would otherwise likely be subcontracted.
- Meter maintenance, repair and service work is generally completed in-house. However, meter reading has realized an increase use of contract meter readers. This was primarily a result of expected AMR projects eventually impacting the in-house meter reading staff. The current AMR implementation is being completed with in-house and contracted staff.
- Additionally, certain activities such as pole testing and treating, post construction clean-up (e.g. grounds restoration, leveling, seeding, etc.), distribution line survey work and JULIE locating have been subcontracted.
- The substation/relay group has also used a similar philosophy. Activities which do not require the skill sets associated with relay technicians or substation journeyman have been moved to contractors. Examples are foundation construction, fencing repair and installation, grounds maintenance, etc.
- However, AmerenIP substation maintenance is only contracted when in-house crews are behind schedule because of too much construction work.
- AmerenIP does not contract out relay work.
- Aside from small local contractors, AmerenIP has outsourcing agreements with a number of contractors for:[19]

[17] DR-041

[18] DR-038

- Vegetation: Wrights Tree Service, Aerial Solutions, Nelson Vegetation Management, Shade Tree Vegetation Management, and Owens Specialty Services, Progressive Solutions, and Professional Vegetation Management Services for herbicide
- Line and substation construction: J.F. Electric, L.E. Meyers, Utility Service Corporation and Miller Construction
- Substation civil work: Schomburg & Schomburg Construction
- Circuit Inspections: Utilimap
- Meter Reading: J.F. Electric
- Automated Meter Reading: Cellnet
- Locating: Consolidated Utility Services and ELM Locating & Utility Services
- Aerial Patrolling: Central Illinois Air Corp and Fostaire Aerial Patrol

- AmerenIP has historically used contractors to maintain its field worker complement. Since 1999, the percentage of contract workers has dramatically increased, leveling out at about 25% since 2003.

Figure 5 - Contractors as a Percentage of Total Workforce

[19] DR-026

Workload and Backlogs

- Work is identified from load analysis, distribution circuit peak demand studies, 4kV and 12 kV studies, distribution engineering studies, government highway projects, the top 10 worst performing circuits, and deteriorated facilities.
- A scheduling meeting is conducted each week to review all types of work for that week and the following week. This meeting includes the electric/gas supervisors, superintendents, engineers, and the work site coordinators.
- Monthly staff meetings are held with the division and operations managers and the reliability group. These meetings are an avenue for participants to discuss safety, human resource and labor issues, and to share ideas between division managers. Decisions can be made but no minutes are kept.
- Critical and non-critical work is scheduled together to ensure a continuous work stream and to assure that all problems on a particular facility are resolved.
- Over the 2004 to 2007 period,[20] the work backlog declined from 36% to 26% as AmerenIP strived to complete work orders through optimized crew scheduling and use of contractors to fill in when necessary. In our experience, this level of backlog workload can be considered normal. The following figures illustrate backlog, first in terms of hours (Figure 6) and then in terms of hours as a percent of total hours worked (Figure 7) from 2004 to 2007.[21] This level of backlog is within normal utility ranges.

[20] Data only available from mid-2003 due to accounting system change.
[21] DR-113

Figure 6 - Historical Work Backlog

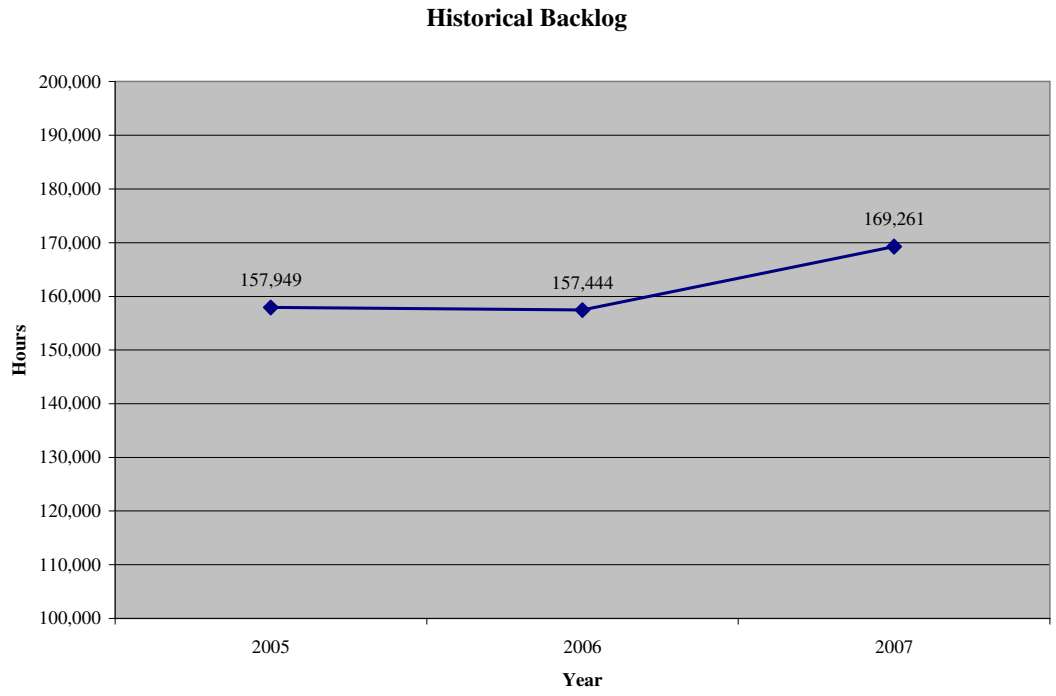
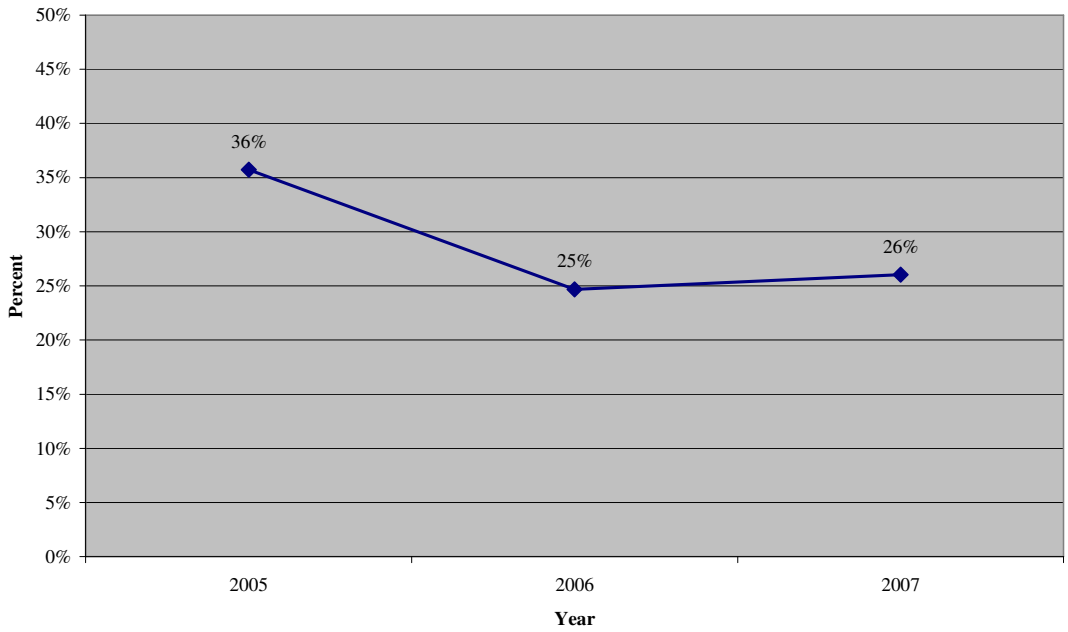


Figure 7 - Workload Backlog



Staffing[22]

- Ameren contracted Towers Perrin to develop a workforce projection for its Illinois Energy Delivery Groups in 2006. The study reviewed a wide range of job and position classifications and considered attrition, retirements and replacement required to maintain a level workforce. Specifically, the study recommended the following:

Table 5 - Workforce Projections

Group	Employee Count 1/1/2006	Annual Additions Next 15 years
Craft Workers – Electric	699	25-35
Craft Workers – Gas	455	20-25
Customer Service (non-union)	163	5-7
Customer Service (union)	139	5-7
Engineers	41	1-2
Leadership	62	2-4
Operatives	155	6-8
Professionals	72	2-4
Support (non-union)	48	1-3
Support (union)	81	3-5
Technicians (non-union)	28	1-2
Technicians (union)	87	2-3
First Line Supervisors	132	3-5 (next 6 years) 6-9 (next 9 years)
Total	**2,030**	**82-119**

- AmerenIP, as part of the Ameren Illinois Utilities, was included in specific workforce planning studies [23] in 2006 that covered substation workers and relay services employees. The study included projections of employee exits in the Illinois workforce due to retirements, deaths and voluntary and involuntary terminations. Ameren is pursuing workforce development initiatives in trade and craft schools, colleges and universities as a result of the study.
    - Substations - The study focused on the then current demographics and the assumption that the core workforce to handle preventative and corrective maintenance, construction activities and various operational activities would remain constant. Staffing is geared toward 70% maintenance and 30% construction. That study indicated that the complement of substation electrical workers would be in excess of approved levels while new apprentices were added to capture the knowledge of the more mature demographic pool. The study also anticipated that actual workforce levels would return to budgeted levels by 2012. The level of staffing required will be influenced by the results of

[22] DR-011

[23] DR-009 revised

the recommendations of the Substation Maintenance Strategy Team, whose review was completed at the end of 2006.

- System Relay Services – This study was conducted in a similar fashion to the study for substations described above. The results indicated that in 5 years of the 10-year study period, this group would be under budgeted staff levels. The report stressed the importance of providing training on a fairly continuous basis to permit the new employees to gain the experience needed prior to staff retirements.

- There were significant staff level changes (primarily reductions) during the period of changes in ownership of the Illinois utilities in the late 1990s and early 2000s.

    - In 1995, Illinois Power had an early retirement offering to coincide with a restructuring effort. The results can be seen in the decrease of staffing numbers from 1995 to 1996.

    - Illinois Power has consolidated smaller offices over the period under review. Generally, this has not led to staff reductions, just reallocations. Known consolidations during this period include Granite City with Maryville, Eldorado with Mt. Vernon, Ottawa with LaSalle, Mt. Clare with Hillsboro, Riverbend with Maryville, Kewanee with Galesburg, Danville with Champaign, Centralia with Mt. Vernon, East St. Louis, Columbia and Trenton with Belleville. Subsequently, Kewanee and Danville have become separate offices. Mt. Vernon and Centralia have crew reporting sites.

    - Illinois Power Company (Illinois Power) was acquired by Dynegy on February 1, 2000. As part of the acquisition, an early retirement and severance program was offered. As of December 31, 2000, 273 employees were either terminated or have retired as a result of the acquisition. An additional 13 employees were terminated or retired by the end of 2001.

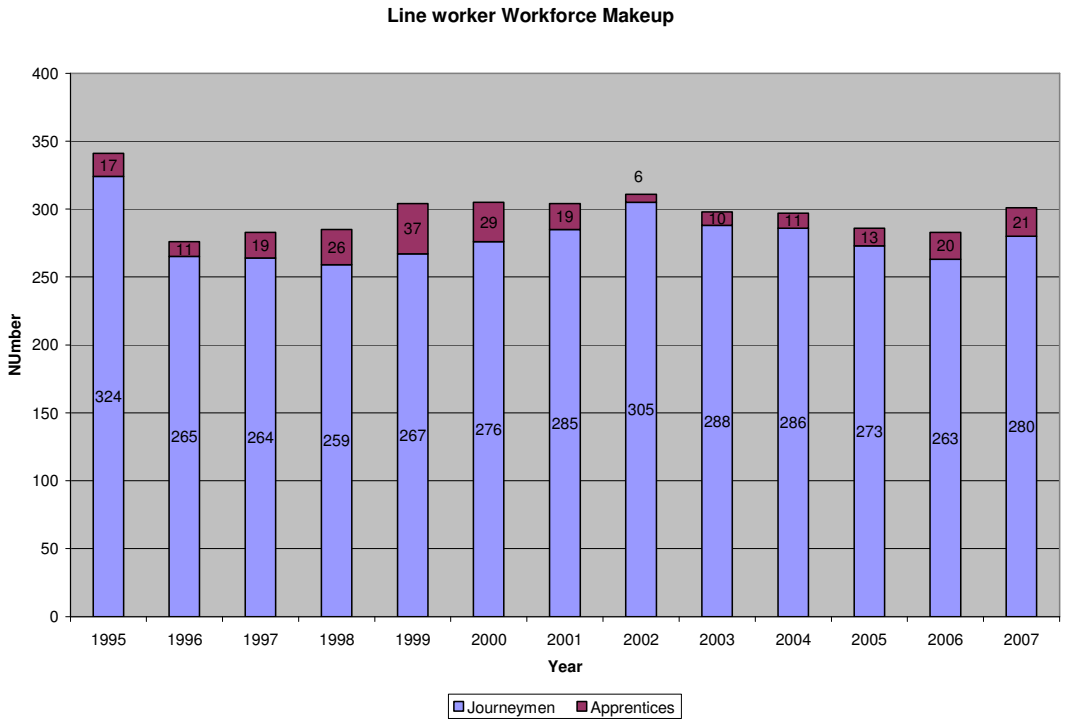
    - On September 30, 2004, Ameren completed its acquisition of Illinois Power. In December 2004, 228 AmerenIP employees accepted a Voluntary Separation Opportunity (VSO) which provided an enhanced separation benefit. Of those, eight left in 2004 and the rest in 2005. In April 1, 2005, 341 employees were transferred to AMS including 96 who had elected the VSO. In addition to VSO-related reductions and transfers, another 20-30 positions were eliminated in connection with the acquisition by Ameren during 2004 and 2005. Most of these position eliminations were related to voluntary departures outside the VSO. All positions were non-union positions.

- Also throughout the period under review, varying management structures have been in place, which led to changes in management staffing.[24]

Line Workers

- The in-house line worker staff complement, including apprentices, is depicted in the following figure.

Figure 8 - Line Worker Workforce Makeup

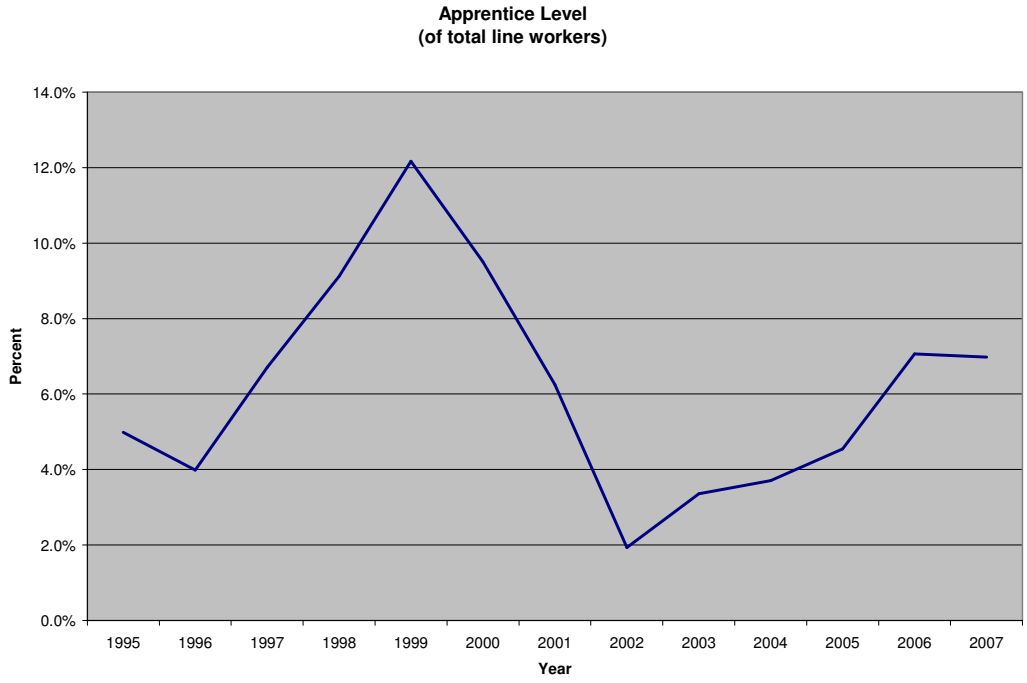


- The staffing level for linemen remained fairly level over the 1995 to 2007 period, with some decreases in the late 1990s and mid 2000s. During those periods, AmerenIP has proactively added apprentices.

- The composition of apprentices has varied somewhat historically, but the current level of 21 is equivalent to historical averages at about 7.5% of the journeyman workforce.

[24] DR-008 and DR-020

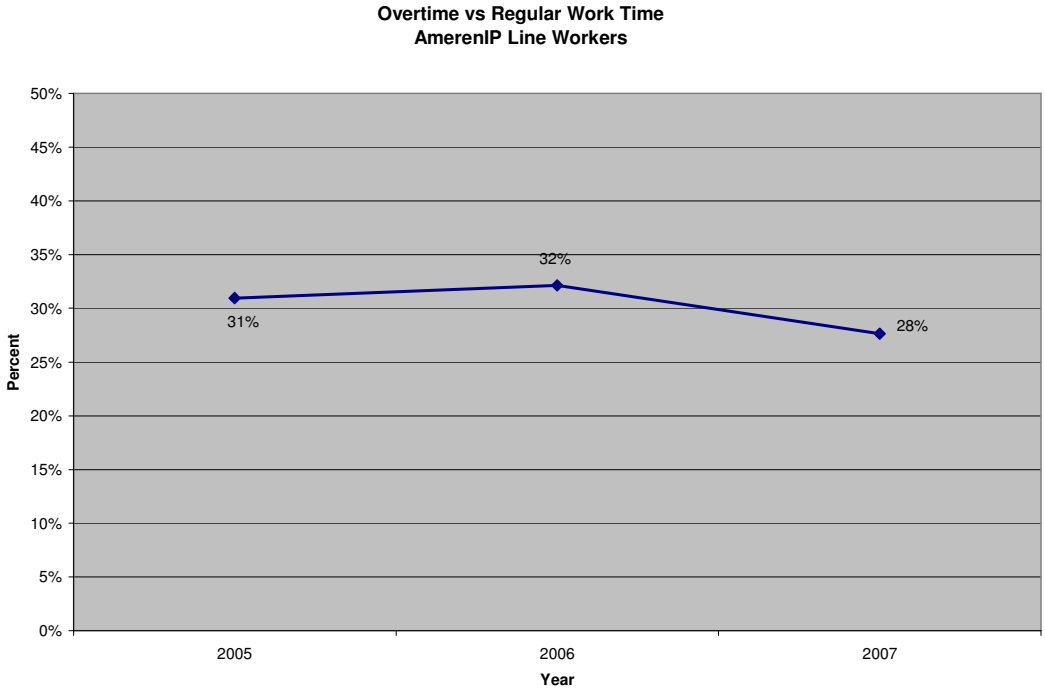
Figure 9 - Line Worker Apprentice Level



- Figure 10 shows overtime has remained relatively flat over the 2005 to 2007 [25]period and declined slightly to 28% in 2007. The higher level of 32% in 2006 may be attributable to storm outages. The results described are consistent with figures reported during our interviews and are high compared to industry averages. Overtime is in the 15% to 20% range as a typical industry practice.

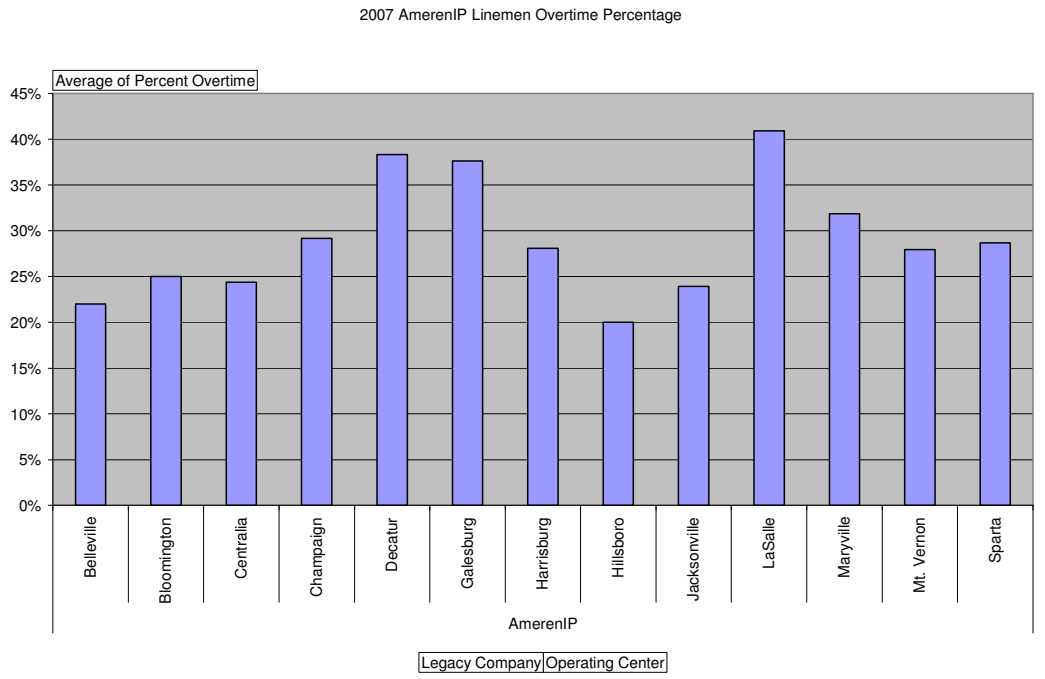
[25] The chart in figure 6 only describes overtime for the last three years due to AmerenIP data retrieval limitations.

Figure 10 - Line Worker Overtime vs. Regular Work Time



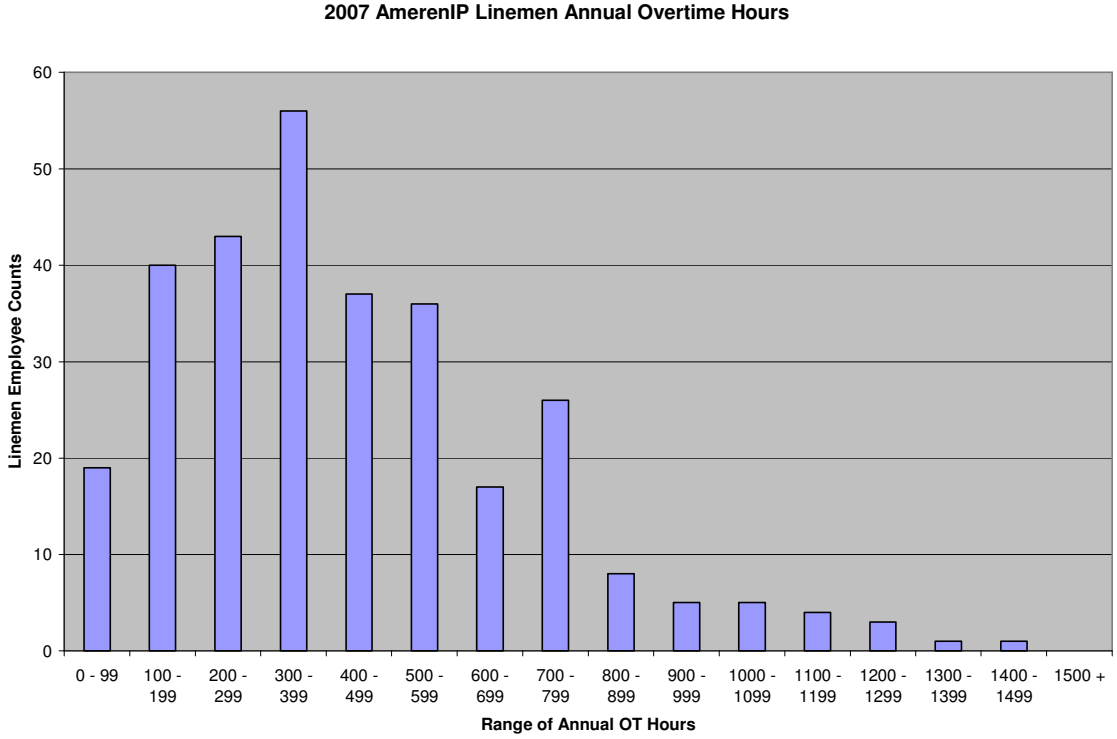
- Overtime varies significantly among operating centers, as depicted in the following figure.

Figure 11 - Linemen Overtime by Operating Center



- During the interview process, we heard that significant overtime was commonplace, in some instances amounting to in excess of 1000 hours of overtime annually. While the level of overtime is high, it is clustered in the range of 100-600 annual hours of overtime, representing from 5% to 29%,[26] as depicted in the following figure.

Figure 12 - Linemen Annual Overtime Hours



- Overtime for AmerenIP crews has remained consistently high and the use of contractors has increased dramatically, reaching nearly 27% in 2006, indicating that the level of workload may be increasing such that the Company should consider augmenting its workforce.

[26] Based on 2080 annual work hours

Figure 13 - Linemen In-house vs. Contractor Complement

- AmerenIP has stated that it utilizes its system performance in terms of reliability and other indices to determine areas of focus. In the following two figures, we show the relationships between staff level changes (journeymen, apprentices and contract workers) and changes in reliability for System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI).

Figure 14 - SAIFI vs. Linemen

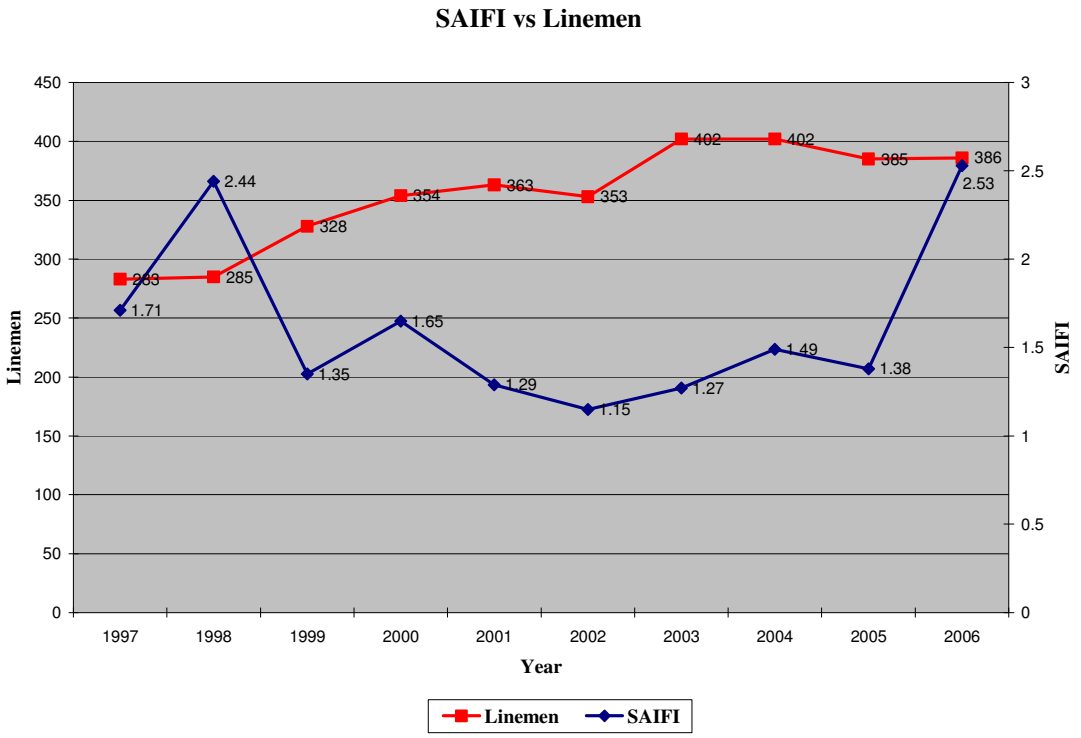
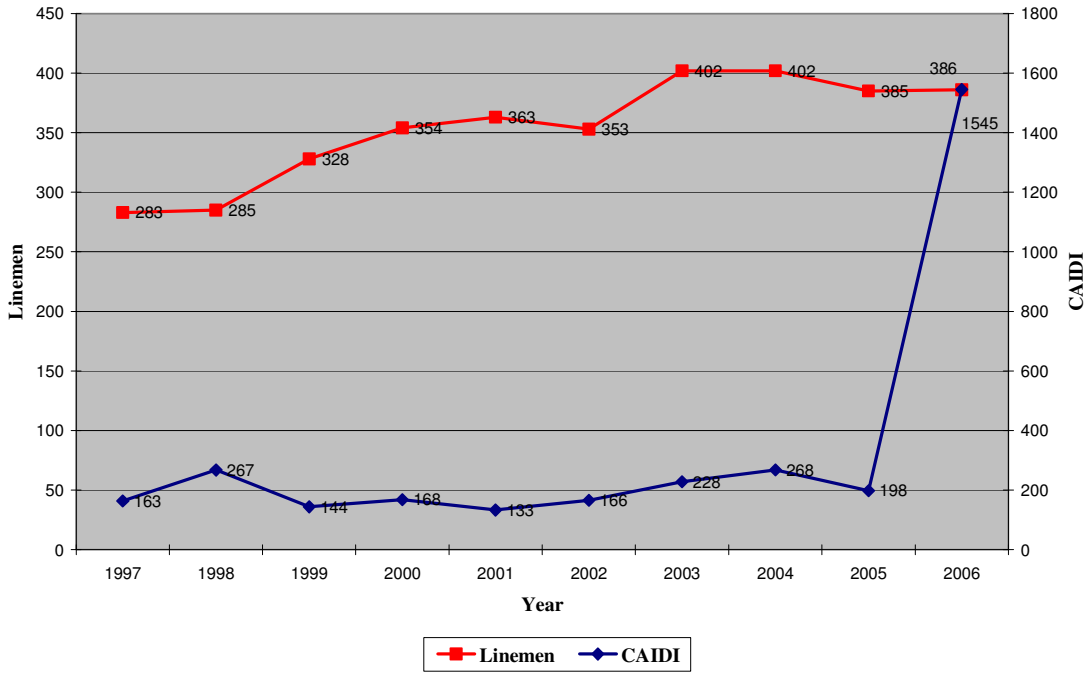


Figure 15 - CAIDI vs. Linemen



- As depicted in the preceding figures, the number of linemen (journeymen, apprentices and contract workers) has been increasing. In terms of commonly used electric industry measures, except for 2006,[27] SAIFI has improved, averaging 1.36 interruptions per customer, and CAIDI has stayed relatively flat hovering around 200 minutes. SAIFI is in the second quartile (good performance) and CAIDI in is the fourth quartile (poor performance). This indicates that AmerenIP has mitigated some outage causes, but restoration times, leading to outage durations remains a challenge: drive times[28] average from 26 to 61 minutes.[29]

- Another set of measures used by AmerenIP to validate its overall service level includes customer satisfaction surveys. Overall customer satisfaction survey results are reported in the Call Center section of this report. With regard to reliability, the ICC mandates that the Utility provide a survey[30] that captures customer sentiment toward their satisfaction with AmerenIP's level of "providing electric service." We have reproduced the results from this survey in the following table for 2002 through 2006.

Table 6 - ICC Mandated Customer Reliability and Satisfaction Study[31]
Overall Satisfaction with "Providing Electric Service"
0-10 scale, total satisfied scores = 6-10

Year	Residential	Non-Residential
2002	8.18	8.44
2003	8.35	8.60
2004	8.54	8.64
2005	8.52	8.48
2006	8.55	8.65

(Illinois Customers Only)
0-10 scale, mean scores

- Ameren recognized that it needed to create and fill workforce positions and provided its Illinois Open Position Action Plan[32] as summarized below for linemen:

[27] In 2006 both CAIDI and SAIFI results were severely influenced by major storms

[28] DR-012

[29] I.E.E.E. 2006 Benchmarking Results

[30] DR-032

[31] AmerenIP Customer Satisfaction Draft Report 2006 FINAL

[32] DR-011

Table 7 - Ameren Illinois Open Position Action Plan[33]

Division	Journeymen Linemen		Apprentice Linemen	
	Per Plan	Actual	Per Plan	Actual
1	6	6	2	2
2	5	5	2	2
3	7	6	4	4
4	7	7	2	2
5	3	3	1	1
6	8	6	2	4
7	3	4	1	0
Total	**39**	**37**	**14**	**15**

- It appears that Ameren Illinois is following the Open Position Action Plan by hiring 52 new electric line staff in the first nine months of implementation.
- The Towers Perrin Work Force Projection Study indicated an addition of 25-35 electric craft workers annually for the next 15 years[34].

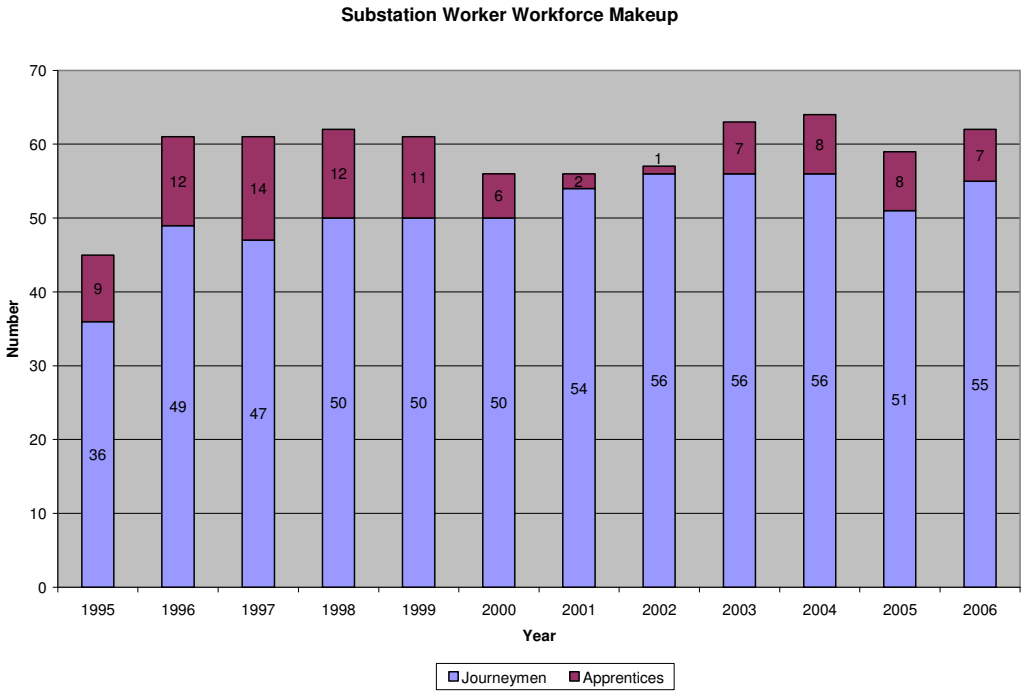
Substation Workers

- AmerenIP has maintained its substation workforce level by proactively adding apprentices consistently since 1995.

[33] The Open Action Plan as specified by Ameren Illinois does not cover a specific timeframe.

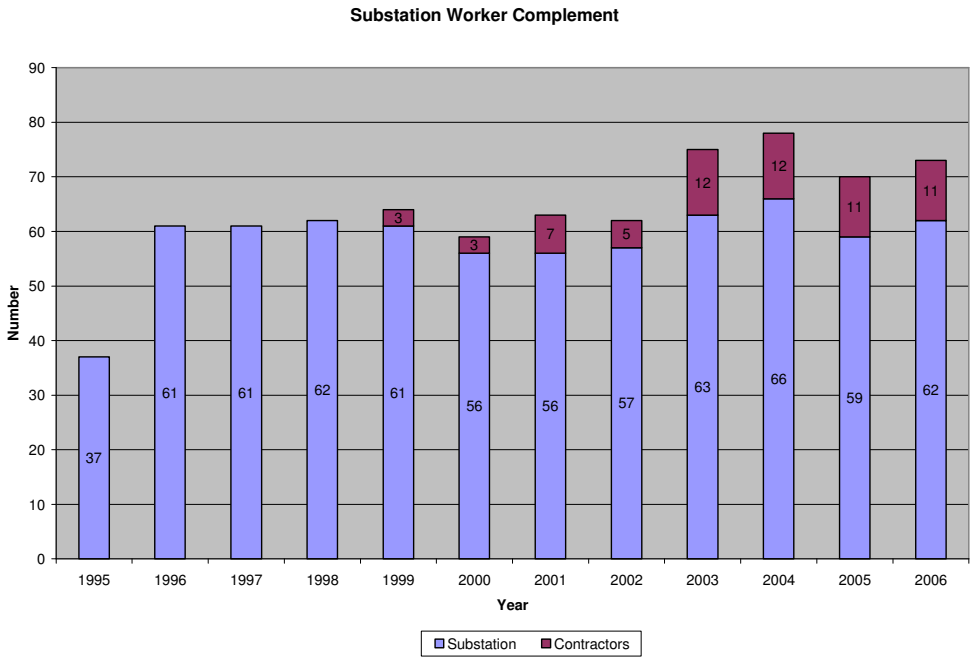
[34] DR-011

Figure 16 - Substation Worker Workforce Makeup



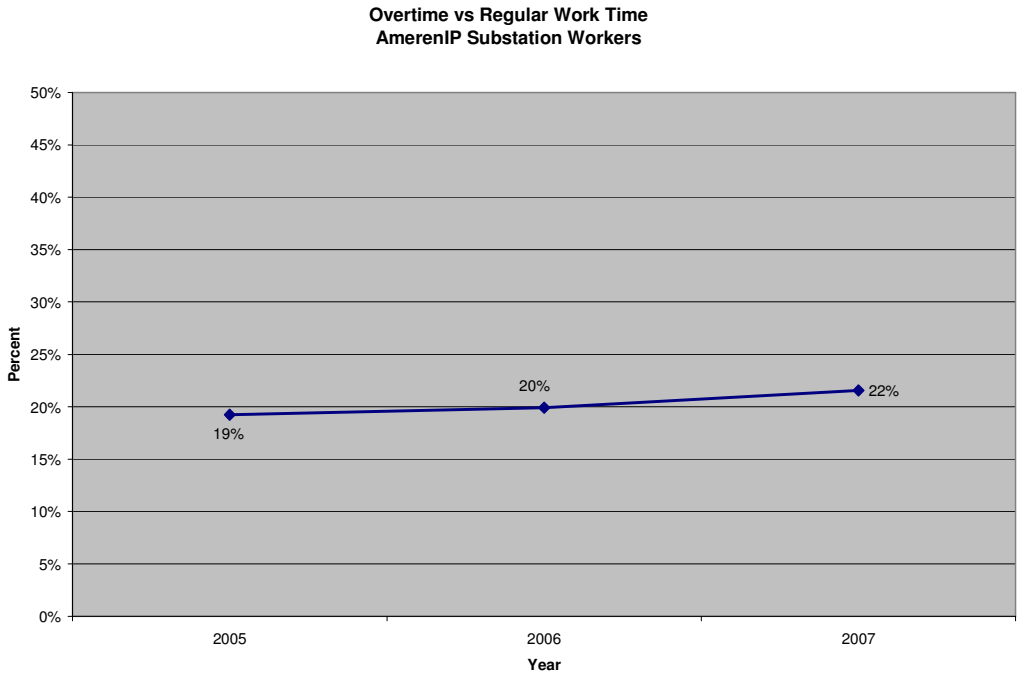
- The Company has recently been utilizing increasing levels of contract work in the substation area for construction and civil works, such as foundations, fencing, etc.

Figure 17 - Substation In-house vs. Contractor Complement



- Approximately 75% of the substation workload is maintenance-related and the remaining 25% is construction-related.
- The level of substation worker overtime has increased slightly since 2005, reaching 22% in 2006.
- Some overtime is planned as part of the budget process.

Figure 18 - Substation Overtime vs. Regular Work Time

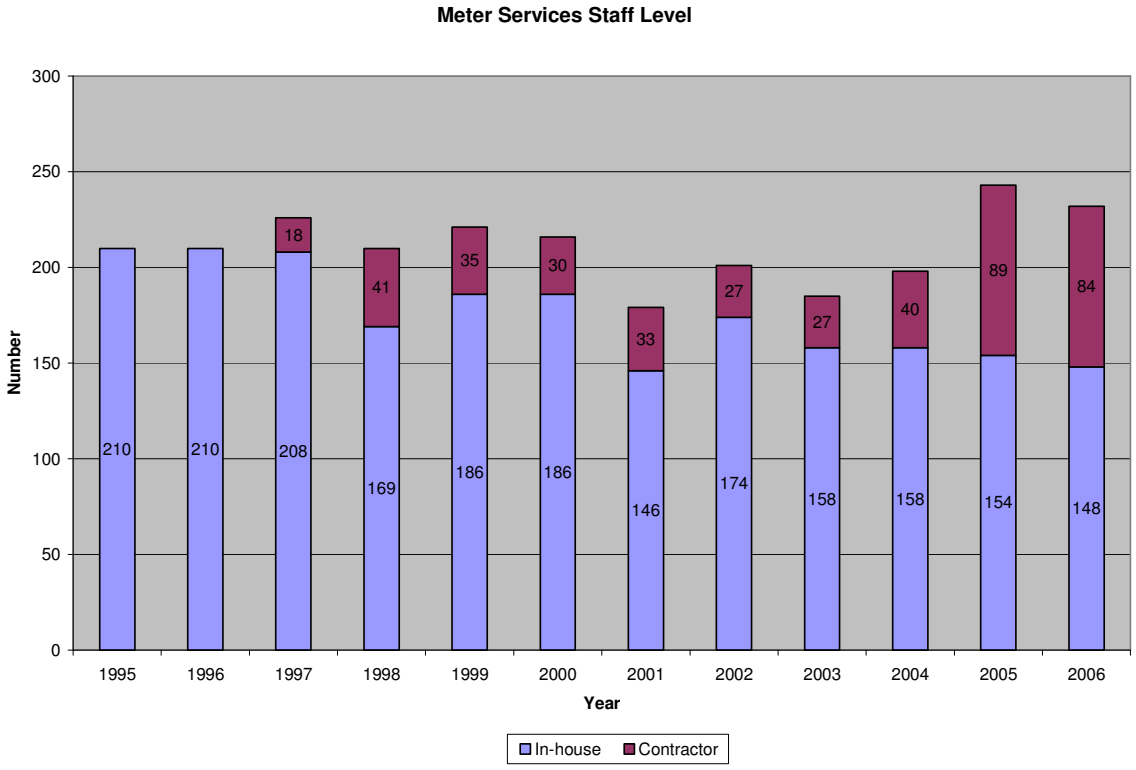


Meter Service Workers

- AmerenIP is in the process of implementing AMR. Knowing that AMR was coming, the Company elected to reduce the meter reader staff by attrition so that there would be few or no layoffs. Many of the readers have and will elect transfers to apprentice programs in other jobs within the Company. AmerenIP has steadily increased the use of contractors for meter readings to provide adequate meter reading staff while AMR is implemented. These resources would be the first choice for layoffs, thus additional use of contractors would not impact in-house employees.

- The meter services staff complement, including contractors was fairly level over the 1998 to 2004 period, but increased significantly in 2005 and 2006, mainly due to added contract staff, as a result of the AMR implementation and AmerenIP moving to a monthly meter reading cycle, as depicted below.

Figure 19 - Meter Services In-house vs. Contractor Complement



- The ratio of customers per meter services employee has generally inversely followed the trend in meter services workers and declined from a high of 3,214 in 2001 to 2,656 in 2006.

Technology Enablers

- The work management system DOJM, purchased and implemented in the mid-1990s by Ameren UE, was adopted by AmerenIP at the time of its merger into Ameren. Jobs are designed, estimated, and reported (materials and time) through DOJM, which tracks required dates and contingencies (customer approval, etc.) throughout the life cycle of a distribution construction project/job. DOJM also has a personal computer (PC) based design/estimating system known as Personal Computer Design system that allows a bill of materials for a job/project to be assembled/built offline and then uploaded to DOJM. DOJM also has a PC-based Work Prioritization and Scheduling system known as WPS. WPS allows prioritization and scheduling of date-driven customer and project work contained in DOJM.

- AmerenIP has deployed mobile data terminals (MDTs) in individual first responder line trucks. In addition, AmerenIP is beginning to provide line crews with MDTs and/or laptops with circuit maps loaded into them.
- Dispatch is currently done from Decatur for Divisions 2 through 6 and from Peoria for Division 1.
- Crews pick up DOJM work orders at the service centers in the morning. The line supervisors review and prioritize the work orders and assigned in-house or contract crews as needed. Upon completion, the work orders are closed out in DOJM by clerks at the service center.
- First responder and trouble work orders are dispatched to the MDTs in the individual first responder line trucks. The troubleshooter will choose jobs from the system, and upon completion these work orders are cleared via MDT. If priorities change, dispatch contacts the troubleshooter to shift work priorities. If the first responder determines that additional crews are required, he/she will utilize the MDT which will result in a work order being created in DOJM and subsequently dispatched to line crews. If the situation requires immediate attention, he/she would contact dispatch via radio to have crews assigned.
- The EMS/SCADA system's reach is down to 34.5 kV for monitoring and control. This allows the Outage Analysis System to rapidly group related outage calls to the device that has operated and speeds the restoration process, as well as provide relevant information back to the call center system(s).
- AmerenIP is currently deploying automated meter reading capabilities through CellNet. This system will result in more efficient and accurate meter reads and will free up meter readers to fill other positions within the Company.
- The table below lists the key applications.

Table 8 - Key IT Applications[35]

Application	Description	Supplier
Distribution SCADA	Referred to internally as DDOS. This is the Distribution Dispatch system utilized to monitor (real-time) and control our electric distribution substations. It also provides map viewing, capacitor control, and other functionality for Distribution Dispatch. Significant telecommunications infrastructure (wired and wireless) providing the information/data from substations. The system was custom built in the early 1990s and expanded in use and functionality since that time. This system also interfaces directly to mainframe OAS for Feeder outage notification, geographical display of outages, and GIS for maps/information.	---
Work Management	DOJM (Distribution Operations Job Management). DOJM is the mainframe based work management system for Gas and Electric construction jobs (crew work). Jobs are designed, estimated, and reported (materials and time) through DOJM. DOJM tracks required dates and contingencies (customer approval, wiring OK, etc.) throughout the life cycle of a distribution construction project/job. This system was purchased and implemented in the mid 1990s. The system is maintained in house and its use and functionality have been expanded since that time. DOJM also has a PC based design/estimating system known as PCDS. PCDS allows a bill of materials for a job/project to be assembled/built offline and then uploaded to DOJM. DOJM also has a PC based Work Prioritization and Scheduling system known as WPS. WPS allows prioritization and scheduling of date driven customer and project work contained in DOJM.	In-house
GIS (Geographic Information System)	The system is referred to as AM/FM, or FRAMME. In Illinois, there are two of these systems in operation. The Ameren system was purchased and built in the late 1990s and contains CIPS and CILCO information. The IP System also built in the 1990s contains IP information. The systems are both Intergraph based vendor systems customized at the time of implementation. The systems are both supported in house. Each AM/FM system serves as the basis for maps, outage analysis circuit models, circuit analysis models, gas analysis models, and mobile maps for field resources. We are currently engaged in a project to upgrade the two systems to a common system based on Intergraph's latest technology/system.	Intergraph

[35] DR-024

General Ledger	Millennium is the mainframe tool used by Ameren to query General Ledger data. The General Ledger system, in turn, is an on-line computer software system purchased from GEAC, formerly Dun & Bradstreet Software. The system combines accounting transactions from systems throughout the Company, such as Accounts Payable, Stores, Customer Accounts and Payroll. Accounting entries called Journals are processed monthly to create the official accounting records of the Company for audit and tax purposes. Company financial reports are produced from the General Ledger system monthly, immediately after the books are closed. In addition, ad hoc and interim reports, tailored to individual departments, are available. Accounting information can be viewed on-line through either mainframe terminals or personal computers tied to the mainframe. The system has at least two prior years of account activity in addition to the current year. Journal detail for the current year is also available on-line. The General Ledger system is coordinated with the Work Order System, which contains detailed project information on-line.	GEAC, Millennium
OAS (Outage Analysis System)	This is a mainframe based system for Electric outages, Emergencies, Gas Leaks, Daily Orders (move in/out), Meter work, etc. Customer outage calls are entered by reps and VRU (internal and external). OAS analyzes calls to group orders and predict likely outage location. The system was implemented in 1993 and extensively modified since then. The system is supported in house. Modifications to the system include presentation of outage information directly to customers through Ameren.com, integration with the CIS system for daily orders, integration with a map viewing system to present a graphical view of outages, automatic email/text paging of Field supervision at defined outage levels, etc… OAS also serves as the basis for the Mobile Data Terminal application. Laptops in the trucks utilize wireless connections to access the same screens and information as internal office users. Extensive Reliability reporting and analysis (scorecards, metrics, etc.) have been developed and utilize the OAS data.	
Map Viewing	This system extracts data from the GIS systems and is utilized in the office and on mobile data terminals to view the Electric and Gas Distribution facility maps. The system is a vendor maintained system with custom interfaces for our GIS data.	Byers
AMR (Automated Meter Reading)	Automated Meter Reading provides daily and cycle meter readings in selected areas of Illinois. The data is interfaced to CIS (for billing purposes) and OAS for operational purposes such as Power Outage Notifications.	CellNet
Meter Data Management	This system is a vendor based system. The system is utilized to determine Market Value and ISS (Interim Supply Service) rates. This data also feeds into CSS. The use of this system is currently being expanded for a Meter Data Management system (MDM) to handle the every increasing volume of interval meters in Illinois. The system also includes missing data estimating routines.	Loadstar

Circuit and Device Inspection (CDIS)	Referred to internally as CDIS (Circuit and Device Inspection system). This system utilizes the GIS database to manage periodic device and circuit inspections. The system manages the schedule and initiates orders for Field inspection. Device inspection orders are passed to the OAS system to be worked on Mobile Data Terminals. The Circuit inspections are interfaced with map viewer for GPS (walking) based field inspection through use of a tablet computer. The field inspection results are collected and stored in the GIS database. Necessary repair orders are automatically generated and passed to DOJM for engineering and construction to resolve.	
Distribution Engineering Workstation (DEW)	DEW is an open architecture electrical distribution system analysis software package. The program uses data from the AM/FM GIS and Transformer Load Management systems to model the electric distribution system. Engineers use these models to perform analysis in order to ensure the safe, reliable, and efficient operation of the distribution system. DEW is used to perform the following types of analyses at Ameren: Load Estimation, Power Flow, Protective Device Coordination, Fault Current, Voltage Flicker, Phase Balancing, and Capacitor Placement. AmerenIP uses PSS/U, which has similar functionality as DEW.	---
EMPRVE (EDS Maintenance Process Re-engineering)	Referred to internally as EMPRV. This is the corporate solution for equipment (substation, fleet) maintenance, and management. EMPRV tracks the assets and directs periodic maintenance, inspection, and repair activities. EMPRV has also recently been enhanced to support the Large Capital projects scheduling, tracking and management in Energy Delivery Technical Services (EDTS) for large project (Substations, Transmission lines, etc.) management.	
Supply Service Systems	Ameren has several systems that manage the procurement and payment of materials, supplies, and services. These systems are based on Oracle's software suite and include Sourcing, Contractor Cost Tracking and Management, Procurement, Supplier portal, Accounts Payable, Accounts Payable Imaging, and Procurement/payment analytics.	
Budgeting	This is a computer based capital and O&M budgeting and financial reporting system.	CompeteSof
Projects/Assets	PowerPlant is a tool that facilitates major construction project setup, maintenance and tracking. It is also used as an asset management tool to unitize property units, act as a cost repository, assist in project and asset management, facilitate queries and produce reports.	---
Human Resources	Personnel information and time tracking and reporting.	Peoplesoft and TRIS

5.1.3 Conclusions

Operations

AmerenIP employs a state-of-the-art control center in Decatur, Illinois to monitor and control the subtransmission and a small portion of its distribution system. The Utility's SCADA reaches down to the 34.5 kV system. At the distribution level, almost no SCADA monitoring or control

exists. The majority of the Company's distribution substations are designed with single-phase reclosers and single-phase voltage regulators, neither of which is cost effective to remotely monitor and control. SCADA interfaces directly with the mainframe OAS for feeder outage notification and geographical display of outages.

Maintenance

AmerenIP has a robust maintenance planning function that meets or exceeds industry norms. The maintenance planning function specifies depth and frequency of line and substation inspections, NESC code compliance, switching and control equipment maintenance intervals. The Company's maintenance planning function makes use of triggering mechanisms to identify required remedial maintenance work. These triggering mechanisms include reliability performance and component operating trends. For example, the ten worst performing circuits are identified for remediation on an annual basis, device performance degradation and underground cable replacement needs.

Staffing

AmerenIP has recognized that its workforce is aging and has recently made efforts to increase its journeyman levels, to attract and retain apprentices to replace retirees and other workforce decreases by conducting the Towers Perrin Work Force Projection Study and following the Open Position Action Plan.

The Towers Perrin Work Force Projection Study indicated an addition of 25-35 electric craft workers annually for the next 15 years. The recently fulfilled Open Position Action Plan appears to have satisfied the first year's recommended additions.

AmerenIP states that its policy is to maintain an overall level of in-house employees needed to perform core base load work and complete workload peaks and valleys with contractors while subcontracting lower-skilled work. However, the penetration of contractor FTEs increased significantly from 1998 to 2006, and in 2006 accounted for approximately 25% of the total workforce.

The staffing level for in-house journeyman linemen and apprentices remained fairly level over the 1995 to 2007 period averaging about 300 through 2006, while overtime between 2005 to 2007 stayed fairly constant at about 28% to 32%. Contractor use increased from 7% in 1999 to 27% in 2006.[36]

[36] AmerenIP believes the contractor use level was most likely higher than shown in the early part of the 1999 to 2007 period because they could only find a portion of the contractor invoice data.

AmerenIP has maintained its substation workforce level by proactively adding apprentices consistently since 1995. The level of overtime among substation workers has been relatively constant, with a slight increase to 22% in 2006. Contractor use increased from 5% in 1999 to 15% in 2006. AmerenIP faces the same difficulty as many utilities in attracting experienced linemen and substation workers, and therefore, depends heavily on apprentice programs. One source for new apprentices is meter readers, some of whom are being displaced with the implementation of AMR. While the Utility has basically maintained its in-house field worker complement, it has increasingly turned to contractors to supplement its workforce.

The meter service group—which consists of in-house and contracted meter readers, meter changer employees and meter technician employees was fairly level over the 1998 to 2004 period, but increased significantly in 2005 and 2006 in order to provide adequate meter reading staff while AMR is implemented. These resources would be the first choice for layoffs, which would avoid an impact on in-house employees.

Line crews are responsible for restocking their trucks each morning from the storeroom. This can account for up to one hour of time that they are not in the field. However, some line crews indicated that they prefer to handle the stock for trucks themselves as opposed to depending on stock clerks to assemble the necessary material on the loading dock.

Line supervisors spend the majority of their day in the service center handling scheduling and other paperwork. They spend the balance of an average day in the field, primarily conducting safety audits and project quality inspections.

Distribution Design Center

AmerenIP has used a Distribution Design Center (DDC) concept to perform field engineering in a centralized fashion for a number of years. Initially, there were two DDC locations. However, in 2003 the Company centralized this function to a single DDC located in Belleville. The DDC frees up Field Engineering Representatives to actively manage customer work at the Operating Center and provides centralized field engineering and design process to a centralized operation. This provides better customer relationship development and provides a higher level of design consistency and quality assurance throughout the process.

Regional Construction Point Program

AmerenIP has developed a roving construction crew concept known as Regional Construction Point (RCP) Program. These crews report directly to job sites and unlike regular line crews, the RCP crews are not pulled off these jobs to handle other work. This allows them to focus on continuous completion of projects. The program has been in existence since the late nineties and is used as an alternative to outsourcing larger type of work projects.

Work Scheduling and Backlog

AmerenIP conducts a series of meetings each month to address workload requirements and to balance the workload across crews and define the level of contractor involvement that is required. These meetings include: weekly workload planning, monthly meetings to review project requirements and timing, and monthly meetings to balance the workload among in-house crews and contractors. Work backlog has been comparable to typical utility performance, averaging about 26%.

Technology Enablers

AmerenIP has a robust set of integrated applications that serve to support the maintenance, dispatch and operations functions. AmerenIP continues to expand and integrate functionality to leverage information technology to enhance productivity and effectiveness. For example, AmerenIP is studying expanding the implementation of MDTs for the line crews to enhance their communications and productivity potential.

5.1.4 Recommendations

5.1.1 Ameren should update the Open Position Action Plan annually to continue to reflect the workforce needs as specified in the Towers Perrin Work Force Projection Study. Once established, the Open Position Action Plan should be aggressively pursued to increase the electric field workforce.

5.1.2 Ameren Illinois should articulate and implement a staffing strategy that promotes consistent in-house and outsourced worker utilization between various divisions and operating centers.

5.1.3 Ameren Illinois should study the advantages of expanding the Distribution Design Center (DDC) concept employed at AmerenIP system wide to capture the efficiencies that it may offer and the permit field engineering representatives to focus more on customer relationships.

5.1.4 Ameren Illinois should study the results of the RCP program, currently utilized at AmerenIP, for effectiveness and, if appropriate, consider extending the concept to other areas of its Illinois operations.

5.2 Training and Safety

5.2.1 Background

The training and safety function is an essential human resource support component of any business. Working safely means the workers leave the workplace in the same condition as when the workday began, while training refers to the acquiring of knowledge, skills and competencies resulting from teaching. In the electric distribution industry, training forms the core of apprenticeships and provides the backbone for technical education. Apprentice programs supply the training for the initial qualifications, while refresher training provides the opportunity for continued technical development. At AmerenIP, electric technical training consists of a combination of both training in the classroom and on the job.

The quality and effectiveness of the training and safety function is one of the most enduring sources of a sustainable, competitive advantage for companies today. Without a well-trained and safe workforce, it would be difficult for any utility to attract new employees, maintain satisfied customers and develop supportive shareholders. Thus, an organization gains a competitive advantage amongst its key stakeholders by encouraging and creating a safe environment and by training its people, allowing them to use their expertise and ingenuity to meet clearly defined objectives.

5.2.2 Findings

Training

- AmerenIP technical training is performed at two training facilities. One, located in Decatur, Illinois, is its legacy training center and the other, referred to as Dorsett, and is an Ameren Missouri facility located in Maryland Heights, Missouri. A new Ameren Illinois business model calls for all training for linemen apprentices, both overhead and underground as well as polyphase meter journeyman, to be performed in Decatur. All substation training currently takes place at Dorsett.

- AmerenIP electric technical training, except for substation training, is a responsibility of the Director— Gas Operations. This position is a direct report to one of two Vice Presidents of Regional Operations. The permanent electric training organization consists of a superintendent of training and four supervisory trainers. In addition, bargaining unit journeyman linemen are used to supplement the training workforce. All trainers have an extensive background in electric power distribution operations.

- Substation training is the responsibility of the Vice President – Electric Delivery Technical Services (EDTS) and is conducted by a substation supervisor with the support of several journeyman substation mechanics to supplement the training workforce. The apprentice program for substation journeymen has recently been standardized throughout Ameren Illinois at three years.

- Unique to the journeyman linemen conducting training on an ad hoc basis is the fact that trainers are selected based on qualifications as opposed to seniority. This helps assure that they are skilled in current technical requirements, as well as being able to effectively deliver the training.
- Course preparation is supported by training course development facilitators located in other departments within Ameren. This, combined with the input from the subject matter expert trainers, helps to ensure that the program content is properly structured with good substance for instruction.
- Safety related technical training is coordinated by division safety specialists and may be taught at either a training facility or an operating center.
- AmerenIP has created an Apprentice Committee to oversee the apprentice program. The committee consists of three management members and three union members.
- AmerenIP apprentice training program is a three-year apprentice program for journeyman linemen. Recently, AmerenCILCO successfully negotiated changing its apprentice lineman program from four years to three years standardizing for Ameren Illinois both the program length and the training content.
- Apprenticeships electric operations serve to teach new employees required skills. Apprenticeship training includes classroom training and on-the-job activities. Knowledge transfer occurs when apprentices are assigned to work side-by-side with journeyman for on-the-job training.
- Each linemen apprentice attends one 3-week course, four 2-week courses, and one 1-week course over three years. AmerenIP belongs to the National Joint Apprentice and Training Committee (NJATC) and uses their training templates. NJATC is a joint program between the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) and has clearly demonstrated a cost-effective way to train qualified craft workers.
- The AmerenIP training program is accredited by the Illinois Department of Labor.
- When hiring into the apprentice program, the applicant's previous knowledge and experience may be helpful in securing a position, but it will not advance him or her in a pay grade. However, when AmerenIP is able to hire an experienced journeyman lineman, the current labor agreements permit hiring into the journeyman rate. Unfortunately, attracting seasoned journeyman linemen in the current competitive employment marketplace has proven difficult.
- Given the three-year apprentice training program, AmerenIP has to hire in advance of known journeyman retirements or hire experienced journeyman linemen, if it wishes to maintain its current journeyman employment levels and in-house technical skills. This

practice helps to develop staff so they are ready when needed and supports knowledge transfer.

- Throughout the study period, AmerenIP organization hired new linemen apprentices in every year except 2001 and 2002. However, the total complement of journeyman linemen, including crew leaders, has been reduced from 341 in 1995 to 301 in 2007. This amounts to a reduction in staff of almost 12%. However, the reduction in staff is actually greater from a skills gap perspective. Given the apprentice program, plus the reality that it takes another three years at a minimum to create a fully versed journeyman linemen, it will be at least six years until the newly hired apprentice is as technically qualified as the linemen leaving the journeyman position. Thus, from a skills gap perspective, assuming only 2% journeyman linemen attrition, the effective linemen workforce could be as low as 285 employees before the impact of the most recently hired apprentices is fully felt.

Table 9 - Linemen Apprentice Staffing Levels[37]

AmerenIP Linemen Apprentices

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1st Year	2	1	11	5	14	2	0	0	9	0	1	6	1
2nd Year	8	2	3	15	4	14	0	0	0	10	9	12	15
3rd Year	4	2	2	3	6	9	10	2	0	0	1	1	4
4th year	3	6	3	3	13	4	9	4	1	1	2	1	1
Total Apprentices	17	11	19	26	37	29	19	6	10	11	13	20	21
Total Journeymen [1]	324	265	264	259	267	276	285	305	288	286	273	263	280
Total Linemen [2]	341	276	283	285	304	305	304	311	298	297	286	283	301
Variance		-65	+7	+2	+19	+1	-1	+7	-13	-1	-11	-3	+18

[1] Total Journeymen would include all other linemen that were not apprentices.

[2] Total linemen departures can not be determined other than comparing variations in total linemen for one year to the next.

- The above table describes the number of apprentices for the 10-year period under study. The table includes a breakdown by year showing how the apprentices have progressed through the program.

Table 10 - Substation Apprentice Staffing Levels

AmerenIP Substation Apprentices

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Electronics Technician Apprentice [1]	3	4	6	5	4	1	0	0	0	0	1	0
Substation Electrician Apprentice [2]	6	8	8	7	7	5	2	1	7	8	7	7
Total Apprentices	9	12	14	12	11	6	2	1	7	8	8	7
Total Journeyman	36	49	47	50	50	50	54	56	56	56	51	55
Total Substation [3]	58	61	61	62	61	56	56	57	63	66	59	62
Variance [4]		+3	0	+1	0	-5	0	+1	+6	+3	-7	+3

[1] Includes Electronics Technician 1st year, 2nd year, and 3rd year.

[2] Includes Substation Electrician 1st year, 2nd year, 3rd year, and 4th year.

[3] Electronics Technicians and Substation Electricians are both included in the total substation headcount.

[4] Total substation departures can not be determined other than comparing variations in total substation employees from one year to the next.

Source: DR-130

- The above table describes the number of substation apprentices for the 10-year period under study. The table includes a breakdown by year showing how the apprentices have progressed through the program.

[37] DR-055, DR-092

- Historically, linemen refresher training consists of three days of training in the training center on a four-year cycle. Refresher training topics include: worker protection, grounding, capacitor banks, transformer hookup, troubleshooting and installing meters, underground troubleshooting and the use of phasing. There has been no refresher training conducted in the first half of this year, but plans are to resume training in the last quarter of 2008.

- Going forward, the Company plans to take the linemen refresher training to the field operating centers and conduct one day of training every two years on a four-year cycle. In order to accomplish this, it is anticipated that an additional trainer will be hired.

- AmerenIP has a total of $2,476,000 budgeted for the electric utility business training, of which approximately $1,454,000 is planned to be spent on field crew and operator training.

- Outsourced service providers, such as electrical contractors, are not trained by Ameren Illinois. Management requires that the service provider retain and provide a qualified workforce. The training centers, however, do provide training to non-electrical contractors such as substation entering training and meter replacement training. In addition, periodically training is provided to firemen and police on working around energized conductors.

- The Utility is instituting efforts with community colleges, chambers of commerce and community groups to develop and enhance a feeder program for new hires.

Safety

- The Ameren Illinois safety organization consists of six division safety specialists and five safety advocates. Although the safety specialists are direct reports to the division manager, they also have a dotted line or indirect reporting relationship to a lead safety specialist who works directly for the Company president.

- The division safety specialists, along with the division managers, act as the lead division safety persons. Job responsibilities and activities include: development of the division safety plan, implementation of the safety plan, training, coordinating safety committees and coaching supervisors. In general, the division safety specialists have in-depth expertise in safety as well as specific knowledge in electric distribution safety.

- The main role of the safety advocate position is to be out in the field full-time interacting with field coworkers. Their interaction includes: job briefings, review of safety practices and providing field safety feedback. Ameren is in the process of formalizing the field safety advocates feedback to enhance their knowledge of field safety issues. A safety advocate supervisor's background is generally skilled crafts with extensive knowledge of

electric field work. Interviews with field employees revealed that the role of safety advocate has been well received.

- Ameren Illinois coordinates some safety activities with Ameren Missouri, but does not get specific safety direction from them. The Illinois safety organization provides safety assistance including accident investigation and preparation of safety materials to the Substation group, which reports into Ameren Missouri.

- Safety training occurs at the operating centers and the Decatur and/or Dorsett training facilities. Training is provided by the first-line supervisor or the safety specialist or some combination thereof. The division safety specialists are tasked with ensuring that appropriate required and discretionary safety training has been accomplished.

- In 2007, the Company initiated the SAFESTART program. SAFESTART reminds employees to stop and think about the work task at hand and their state of mind. For example, a poster reminds employees that rushing, frustration, fatigue and complacency can "cause or contribute to these critical errors" such as "eyes not on task," "mind not on task," "line-of-fire," and "balance/traction/grip," which increase the risk of injury. Much of the training associated with this program is conducted by bargaining unit employees.

- Represented employees are keenly aware of the Company's emphasis on safety, but some feel it is being driven by the numbers and take exception to the use of discipline for safety violations. Several interviewees opined that supervisors pay insufficient attention to safety when there is a large work backlog or when they are under emergency storm conditions. These opinions could not be substantiated by interviews with management employees. In general, the bargaining unit employees interviewed responded well to the Utility's recently-initiated SAFESTART program.

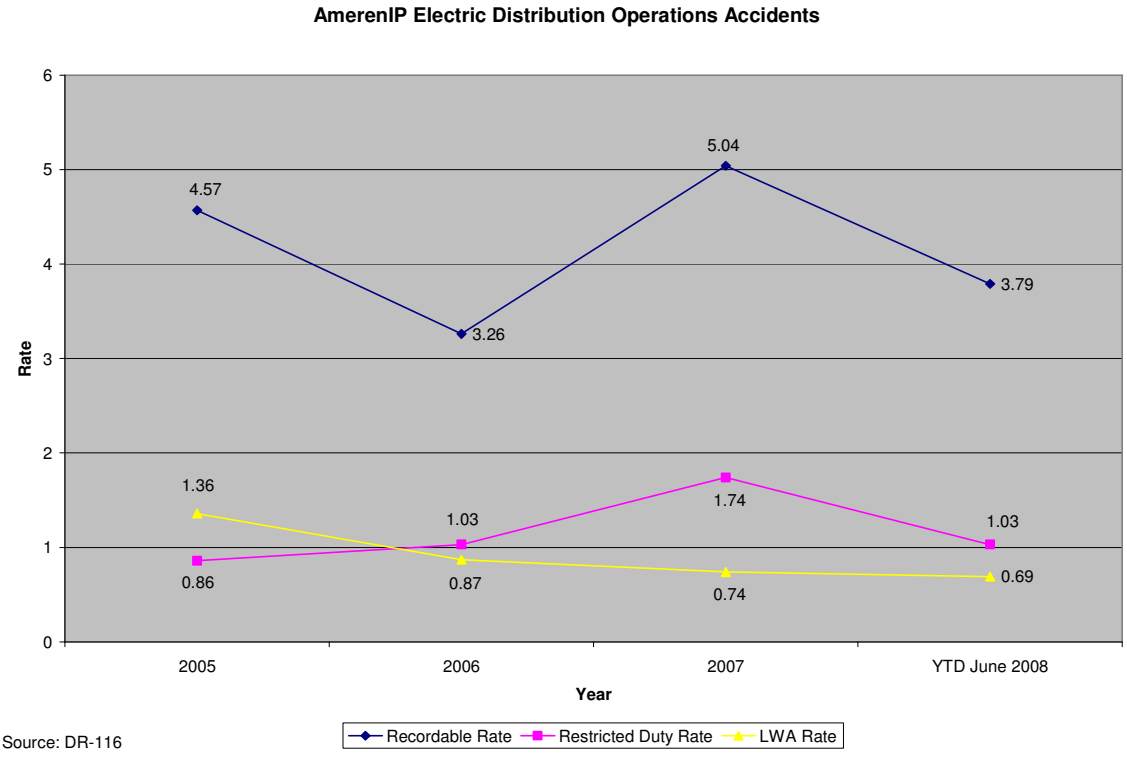
- The Company has in effect a safety policy called "The Rules to Live By." This document embodies work rules that are critical or fundamental to safety work practices and potentially could danger employee health and safety if ignored. "The Rules to Live By" document clearly states that not following these rules will result in immediate progression to step four of the five step disciplinary process, which will result in immediate suspension. At the same time, the Utility is asking employees to discuss near accident misses so that others can learn. Certain union members indicated they are fearful to present this information because it could result in discipline. The Company is making an effort to overcome union fears when talking about near misses, but cannot guarantee that disciplinary action will not be taken as OSHA expects discipline to be given when employees break certain rules. The Company is attempting to develop a plan that meets both objectives.

- The Company exceeds OSHA's annual inspection requirement by performing safety inspections quarterly. Ameren refers to their safety inspection program as Job Behavioral Observations, and its goal is to have first-line supervisors conduct safety

inspections at least monthly. For each field inspection, a report of what is observed is completed and entered into a database. Observations include both obvious safety omissions like hardhats, use of wheel chocks, position of the vehicles, etc. and more of electric safety observations like approach distances, voltage and grounding work practices, compliance with Worker Protection Assurance (WPA) work practices, etc.

- Ameren does not supply safety training to their contractors. They contractually require that the contractor comes to them with a viable safety training program in place and can meet the safety requirements for the contracted work.
- Formal safety training includes: hazard communications, asbestos, emergency evacuation training, confined space entry, fire extinguisher, first aid/CPR training, PCB & Oil Spill Training, CDL and defensive driver training, plus other programs provided on an annual or periodic basis.
- The figure below shows the recordable injury rate, the restricted duty rate and the LWA rate (lost work days away) for AmerenIP between 2005 and 2008 year to date. All three rates result from a comparison of the number of injuries to the number of hours worked and describe progressively the severity associated with AmerenIP accident experience.

Figure 20 - Electric Distribution Operations Accidents



Source: DR-116

- From the preceding figure, it can be seen that:

- The recordable injury rate has fluctuated, with a low reached in 2006, increased in 2007, but is trending lower YTD June 2008.
- The restricted duty rate trended higher between 2005 and 2007, but is trending lower YTD June 2008.
- The LWA rate consistently declined from 2005's experience and is trending lower YTD June 2008.

- The Company's safety department indicated that Ameren Illinois does not specifically have safety benchmarking data used to compare the Illinois electric operations with other utilities. They do participate and possess benchmark information from the Edison Electric Institute Safety Survey that provides for general safety comparisons. This survey includes both Missouri and Illinois Ameren Energy Delivery and consists of gas, electric and corporate Company data and not just Illinois electric distribution operations.

5.2.3 Conclusions

Training

Both the apprentice linemen and apprentice substation journeymen training programs are typical of apprentice programs found in the electric distribution industry. The similarity is both in the three-year length of the program, as well as the course content. AmerenIP belongs to a National Joint Apprentice and Training Committee and uses their standard templates. Journeyman linemen on an ad hoc basis are utilized to conduct the training. Their selection is based on qualifications as opposed to seniority, helping to assure that they are skilled in current technical requirements, as well as being able to effectively deliver the training.

Throughout the study period, the AmerenIP organization hired new linemen apprentices in every year except in 2001 and 2002, as well as hiring substation apprentices in every year. However, despite these new apprentice additions, the journeyman linemen workforce between 2002 and 2007 decreased by almost 8%. In addition, from an in-house technical skills and skill gap perspective, the reduction is even greater due to the length of time required to develop an effective employee. Given the reluctance to place into position and train apprentices in advance of anticipated needs, the Utility will experience difficulties in maintaining in-house technical skills. Assuming there is a desire to maintain the in-house technical competency, the Company should enhance its ability to forecast future staffing requirements and hire accordingly.

AmerenIP's approach to utilizing qualified bargaining unit members as linemen training instructors helps assure that they are skilled in current technical requirements, as well as being able to effectively deliver the training.

Safety

Safety, as stated by all levels of management and bargaining unit personnel, is a leading AmerenIP objective. Based on our experience, the emphasis placed on safety is consistent with what other utilities are requiring in today's workplace. The Company promotes a proactive SAFESTART Program while maintaining employee accountability. The Company also conducts extensive safety training and inspections.

In contrast to the emphasis on safety, the Company participates in minimal benchmarking to compare itself to other electric distribution utilities. Benchmarking can result in the identification of best practices, which may ultimately present safety efficiency and effectiveness opportunities.

5.2.4 Recommendations

5.2.1 Improve ability to forecast future retirements for key bargaining positions by conducting annually, an informal nonbinding survey of those who are within four years of retirement age.

5.2.2 Participate in an ongoing safety benchmarking survey with comparable electric distribution utilities, so that best practices may be identified and analyzed, and uncover opportunities for AmerenIP to proactively pursue.

5.2.3 Re-title the Director—Gas Operations position to reflect his Ameren Illinois electric technical training responsibilities.

5.3 Quality Assurance

5.3.1 Background

A formalized and documented quality assessment and control process for substations, distribution lines, meter reading and vegetation management is essential to ensure that the construction and maintenance of the system meets specification and safety standards. This is particularly critical where contracted services are employed, as is the case at AmerenIP. The quality assurance processes for substations, distribution lines, meter reading and vegetation management are discussed below.

5.3.2 Findings

Substations

- If substation work is contracted out, AmerenIP's relay crews will test the equipment before commissioning.

- Maintenance work is not normally contracted, but when it is contracted a specific inspection order is generated and the results of the inspection by the Company's supervisor or maintenance engineer are documented in a database.
- Contracted construction inspections are the responsibility of the job engineer. Electric Delivery Technical Services (EDTS) can be invited to assist in conducting the inspection work. Construction engineers also have project midpoint inspection checkpoints where work is halted for the inspection, which includes job quality and conformance to standards and specifications. Construction engineers have a log to capture findings.
- AmerenIP linemen conduct most of the weekly substation inspections. The substations group is looking at implementing hand-held computer units (Ameren Illinois-wide) to better automate and capture inspection data for trend and failure analysis.

Distribution Line Work

- The Quality Assurance Auditor primarily inspects overhead distribution, but also will review some underground installations and some 69 kV and 34.5 kV installations. The Auditor usually audits 15-20 jobs weekly. These construction jobs are either randomly sampled out of DOJM, provided by the local supervisor or samples provided by the engineering group. The Auditor uses a Quality Assurance (QA) checklist of 10-15 items that are most commonly found to be wrong. QA findings are put into a database and reports are sent to division managers and vice presidents. If maintenance items are noted, they are entered into DOJM for scheduling. Inspections are currently limited to construction jobs, and if the QA staff is expanded inspections would also include corrective work. There may be a QA process gap in that lessons learned through this audit program are not formally transmitted to the training center for inclusion in refresher courses.
- Line foremen do pre-inspections for contracted work.
- Line supervisors do spot checking on jobs as part of their NESC and line inspections.
- There is a Quality Assurance Group with two auditors that was initiated in December 2007. Their charter is to inspect construction jobs executed by both in-house and contract crews to review standards compliance and NESC compliance. They inspect significantly less than 10% of the jobs.
- The Operations Supervisor will perform quality and safety checks while in the field, typically only several hours daily.

Metering

- In metering, contractors are under an incentive program for meter read accuracy.

Vegetation Management

- Vegetation management is entirely out-sourced. AmerenIP uses a 3-pronged inspection process:

    1. The vegetation contractors' management prepares and submits a formal written audit per crew each month.
    2. AmerenIP supervisors review these reports and field check 10% of the audits.
    3. AmerenIP supervisors conduct monthly drive-by audits of contractor crews to monitor compliance with safety, standards, performance and invoicing.

5.3.3 Conclusions

Based on the inspection results described above we conclude; AmerenIP has a formal but not completely documented quality assessment and control process for substations, distribution lines, meter reading and vegetation management.

Ameren Illinois has recently created the position of Quality Assurance Inspector and currently has two Quality Assurance inspectors for all of Ameren Illinois. While we applaud this program, we believe that the current number of inspectors is inadequate to perform quality assurance reviews across all three Ameren Illinois companies.

5.3.4 Recommendations

5.3.1 Establish a formalized documentation process for the quality assessment and control process employed by AmerenIP.

5.3.2 Increase the number of Quality Assurance inspectors, above the current level of two, to permit a larger sample of the system to be inspected annually for quality.

5.4 Distribution System Condition Assessment

5.4.1 Background

During the discovery and interview process, we got the impression that maintenance activities may have been less than adequate over the 1995 to present period. Our concern was if maintenance work has not been adequately accomplished over a prior number of years, the condition of the distribution system could be declining. This could necessitate devoting

additional resources to remediate existing conditions on the system as well as to assure that the on-going maintenance program is on track and maintenance is being performed in a timely fashion.

Distribution Overhead Lines

We developed a random sample of AmerenIP's circuits, including worst performing circuits to be visually inspected. This sample was developed using a binomial sample methodology with a 90% confidence level and a 10% error rate, as is typically used in the utility industry to formulate condition assessments. We believe that the results of the resulting visual inspections are representative of the overall AmerenIP distribution system. Our inspectors were accompanied by Company engineers and other staff who provided transportation and locating services for the subject facility inspections. We examined a total of 893 poles covering 10 circuits across the AmerenIP service area.

We developed and employed a tailored Circuit Inspection Form and the results of the inspections were documented in a database for analysis. For each pole, we visually inspected and recorded the following information:

Table 11 - Circuit Inspection Methodology

Inspection Item	Methodology
Location	Roadside or in the right-of-way
Pole Condition	Visual check for damage, leaning and sounding the pole for rot at the butt and at about 4 feet up
Number of phases	Number
X-Arms	Type and condition
Insulators	Condition
Devices	Type and condition
Conductor/Shield	Condition
Guy/Anchor	Type and condition
Attachments	Type
ROW condition	Encroachment of vegetation along the span from the prior pole to the subject pole

Substations

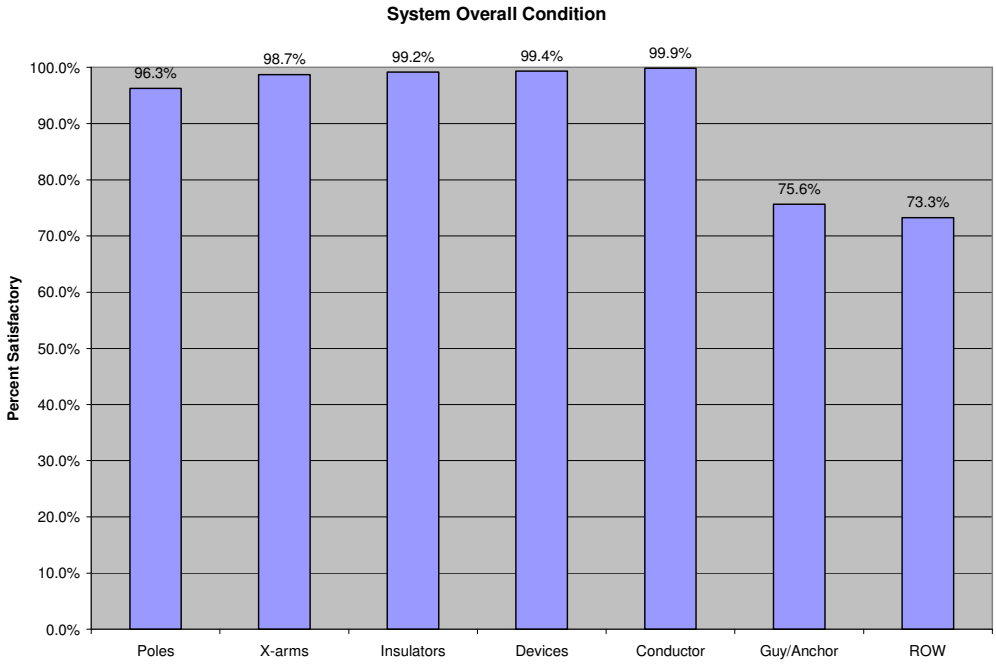
As part of the distribution system inspection process, the inspectors inspected five distribution substations that were within the circuit selections for AmerenIP.

5.4.2 Findings

Distribution Overhead Lines

- AmerenIP's distribution system appears to be in good condition electrically and mechanically based on the inspection results shown below.

Figure 21 - Summary of System Inspection Results



- Details of the inspection results are shown in the table below.

Table 12 - Details of Inspection Results

Pole Condition	Count	Percent
0-Satisfactory	828	96.3%
1-Upper Pole Decay	18	2.1%
2-Ground Line Decay	10	1.2%
3-Termite Damage	1	0.1%
4-Slight Lean (< 15 deg)	9	1.0%
5-Severe Leaning (> 15 deg)	3	0.3%
6-Broken	0	0.0%
7-Treated (Wrap, etc)	0	0.0%
8-C-Trussed	0	0.0%
9-Adjacent Pole (Old & Needs Removal)	1	0.1%
10-Other	7	0.8%

Insulator Condition	Count	Percent
0-Satisfactory	855	99.2%
1-Contaminated, Residue	1	0.1%
2-Visible Crack	0	0.0%
3-Broken	1	0.1%
4-Leaning	3	0.3%
5-Tie Unraveled	1	0.1%
6-Pin Pull/Pushing Thru Arm	0	0.0%
7-Pin Broken	0	0.0%
8-Pin corroded	1	0.1%
9-Other	0	0.0%
	862	100.0%

X-Arm Type	Count	Percent
0-Wooden (Single)	377	39.5%
1-Wooden (Double)	171	17.9%
2-Stand-Off-Metal	75	7.9%
3-Stand-Off- Poly	19	2.0%
4-Stand-Off w/ Squirrel Guard	0	0.0%
5-Alley Arm	19	2.0%
6-None	293	30.7%
7-Other - list	1	0.1%
	955	100.0%

X-Arm Condition	Count	Percent
0-Satisfactory	922	98.7%
1-Split	5	0.5%
2-Burnt/Rotted	5	0.5%
3-Termite Damage	1	0.1%
4-No Braces (on X-arm)	1	0.1%
5-Failing @ Thru-Bolt	0	0.0%
6-Broken	0	0.0%
7-Corroded	0	0.0%
8-Other	0	0.0%
	934	100.0%

Device	Count	Percent
0-None	360	22.0%
1-Fuse (Cut-Out)	393	24.0%
2-Arrestor	418	25.6%
3-XFMR	344	21.0%
4-Capacitor-Fixed	10	0.6%
5-Capacitor-Switched	7	0.4%
6-Regulator (No.)	9	0.6%
7-Recloser/Sectionalizer	29	1.8%
8-Disconnects-Single Blade	1	0.1%
9-3-Phase Tie Switch (Type)	62	3.8%
10-Riser on Pole	2	0.1%
11-Other - List	0	0.0%
	1635	100.0%

Device Condition	Count	Percent
0-Satisfactory	1261	99.4%
1-Corrosion, Rust, Pitting	0	0.0%
2-Bushing Broken/Cracked	0	0.0%
3-Arrestor - Missing	0	0.0%
4-Arrestor - Obsolete	0	0.0%
5-Arrestor - Long Lead	0	0.0%
6-Arrestor/Failed/Damaged	8	0.6%
7-Hardware Hanging	0	0.0%
8-XFMR Disc'd (Needs Removal)	0	0.0%
9-Riser Pothead/Connection Prob.	0	0.0%
10-Riser w/o Ventilation	0	0.0%
11-Other	0	0.0%
	1269	100.0%

Conductor Condition	Count	Percent
0-No Visible Problems	860	99.9%
1-Conductor Sag	0	0.0%
2-Tight Phase Separation	0	0.0%
3-Poss Clearance Violation	1	0.1%
4-Clamps Worn/Loose	0	0.0%
5-Ties Unraveled	0	0.0%
6-Pitted,Corrosion	0	0.0%
7-Strands Broken	0	0.0%
8-Some Melting	0	0.0%
9-Guy, Other Contact	0	0.0%
10-Ground Wire Cut or Missing	0	0.0%
11-Other	0	0.0%
	861	100.0%

Shield Wire Condition	Count	Percent
0-Satisfactory	492	99.8%
1-No Shield Wire	367	42.7%
2-Shield Wire < 45 Degrees	0	0.0%
3-Shield Wire > 45 Degrees	1	0.1%
4-Corrosion	0	0.0%
5-Broken Strands	0	0.0%
6-Other - List	0	0.0%
	860	100.0%

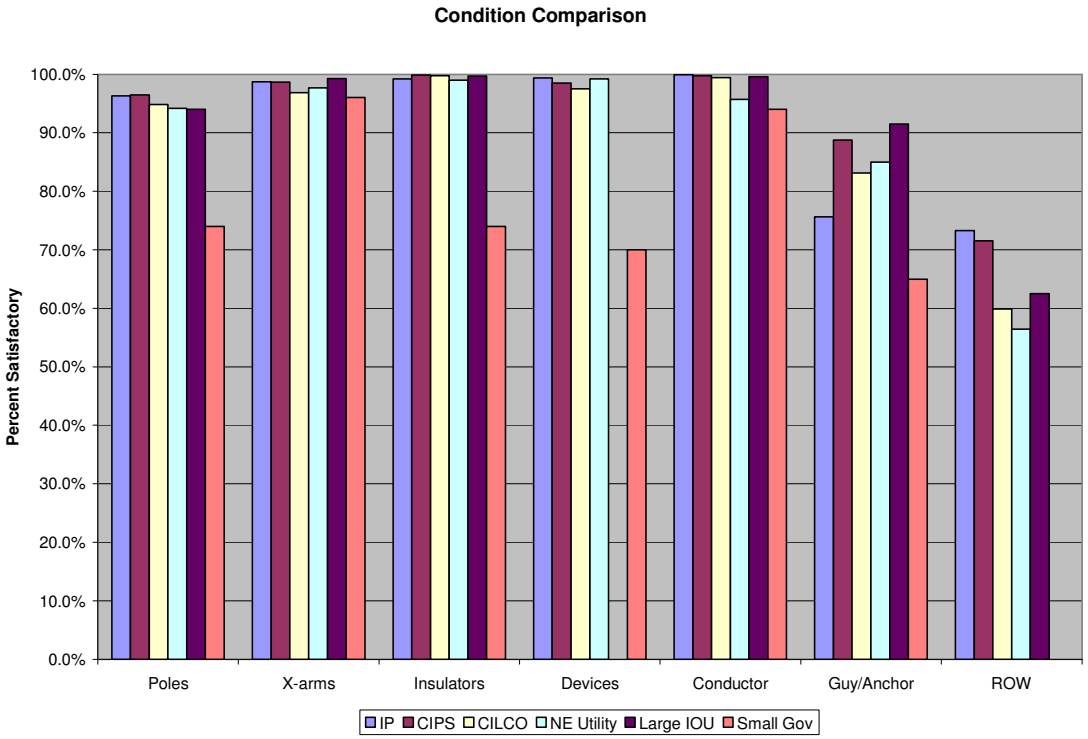
ROW Condition	Count	Percent
0-Clear (No trees or Underbrush)	502	58.4%
1-Trees/Limbs >8'	128	14.9%
2-Trees/Limbs 3>d<8'	86	10.0%
3-Trees/Limbs < 3'	117	13.6%
4-Trees/Limb Contact	26	3.0%
5-Danger Tree	0	0.0%
6-Underbrush w/in 3'	0	0.0%
7-Vines, Moderate	0	0.0%
8-Vines, Severe	1	0.1%
9-Other	0	0.0%

Guy/Anchor Condition	Count	Percent
0-Satisfactory	245	75.6%
1-Guy Wire Strands Broken	0	0.0%
2-Guy Rusted	67	20.7%
3-Anchor-Tight	0	0.0%
4-Anch - Loose or Broken	0	0.0%
5-Guy Missing or Deteriorated	0	0.0%
6-Slack Span on Stub	0	0.0%
7-Guard Defective/Missing	15	4.6%
8-Other	7	2.2%

Attachments	Count	Percent
1-Telephone	394	45.8%
2-CATV	459	53.4%
3-Unknown	5	0.6%
4-Pole Extender	3	0.3%
5-Secondary	308	35.8%
6-Service	437	50.8%
7-Street Light/Spotlight	178	20.7%
8-Other	0	0.0%
	860	100.0%

- AmerenIP's overhead electric distribution system condition compares favorably with several other utilities[38] for which we have conducted condition assessments.

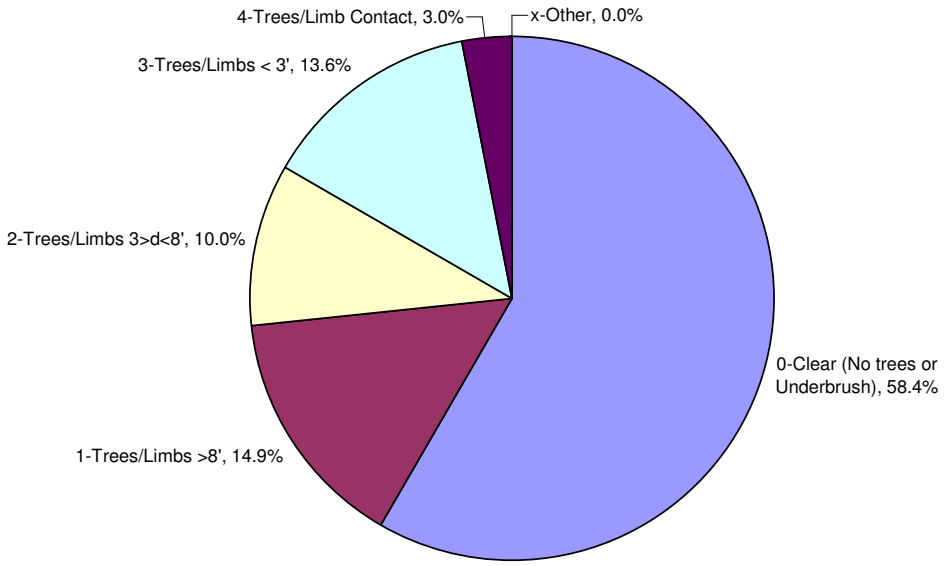
Figure 22 - System Condition Comparison



- Vegetation encroachment appears consistent with a 4-year trim cycle (as illustrated in the diagram below).

[38] The New England Utility is mid-sized, the Large IOU and the Small Government utilities cannot be identified as per contractual confidentiality agreements.

Figure 23 - Status of Vegetation Encroachment



- 73.3% of the ROW is clear of vegetation or with vegetation beyond 8 feet; this is above results for other medium to large Investor Owned Utilities (at 62.5% or more).
- Additionally, based on our physical inspection, only 16.6% of the circuits have vegetation in direct contact with the primary conductor or within 3 feet, which poses an immediate risk. This can be considered normal given a four-year trim cycle as some of these circuits may be at or near the end of the cycle and ready for trim. The overall ROW condition is depicted in the following:

Table 13 - ROW Condition

ROW Condition	Percent	Risk Factors
0-Clear (No trees or Underbrush)	58.4%	
1-Trees/Limbs >8'	14.9%	Risk factor in 3-5 years
2-Trees/Limbs 3>d<8'	10.0%	Risk factor in 1-3 years
3-Trees/Limbs < 3'	13.6%	Immediate Risk Factor
4-Trees/Limb Contact	3.0%	
x-Other	0.0%	

Distribution Substations

- In general, the condition of the distribution substations appeared adequate. The inspector's impression ratings ranged from fair to good. In some cases, access fence and gate grounding was inadequate. The substation yards ranged from clean to messy. Details of the inspections are shown in the following table.

Table 14 - Distribution Substation Condition

Sub ID	Name	# of Xfmrs	Oil Leaks	Fence	Fence grounds	Gate grounds	Overall Appearance	Comments
N94	Limerick	1	1	Good	Yes	No	Good	Birdnests in structure, oil leaks on B phase regulator
P85	Normal	2	0	Satisfactory	No	No		Grounds not called for in older spec
	Pickneyville	2	0	Fair	Yes	Yes	Fair	Clean yard, needs fence maintenance
K76	Champaign (Xmsn)	2	0	Acceptable	No	No	Poor	Messy yard, structure appears rough
K76	Champaign (Dist)	2	0	Good	Yes	Yes	Good	Well kept

5.4.3 Conclusions

AmerenIP's overhead distribution plant appears to be in good mechanical and electrical condition.

While AmerenIP is on a 4-year vegetation trim cycle, we would expect to see some (15% to 20%) of the limbs within 3 feet of the conductor or in contact; and at 16.6% it appears to indicate that the Company's trim program may be somewhat ahead in execution.

AmerenIP's distribution substations appear to be in adequate electrical and mechanical condition; however, fence and gate grounding should be examined during regular inspections.

5.4.4 Recommendations

5.4.1 AmerenIP should review its substation inspections to assure the adequacy of fence and gate grounds.

5.5 Call Center

5.5.1 Background

Ameren has integrated its customer service function into a single department and has created a virtual call center with locations in Peoria, Pawnee and Decatur that services all the Ameren Illinois service territory. Ameren has both electric and gas customers, and Ameren Customer Service Representatives (CSR) can answer calls from all customer types and service areas. There are four groups within the call center: General Residential, Solution, Business and Construction. There is a brief description of the Solution, Business and Construction functions below.

The call center uses numerous shifts to cover call volume. Since the call centers has the ability to answer calls from all Ameren customers, there is 24-hour coverage with Peoria and Pawnee employees covering the times when the AmerenIP call center is closed. There are three toll-free numbers for customers to call, and these are routed to the call center automated call distributor. The call center has participated in Ameren Emergency Operation. The Company has numerous major technology enablers that help the call centers perform their mission. The call center has been J.D. Power and Associates certified for providing "An Outstanding Customer Service Experience."

The Solution Center aids in specific functions of the Contact Center. The main objective of the Solution Center is to perform back-office off-the-phone tasks that can significantly impact Customer Service. The designated tasks have centralized processes that define the roles and responsibilities of the Solution Center employees.

The Business Group responds to all customer inquiries, both verbal and written, in a manner that strives to assure that customers are treated with the utmost concern, respect, courtesy and sensitivity, while also treating each customer fairly and equitably.

The Construction Group responds to all AmerenIP customer calls, faxes, internet requests, messages and e-mails for new construction requests of temporary electric, permanent gas and electric services; relocation of services and meters for both gas and electric; lighting requests; and retirement of gas and electric services.

5.5.2 Findings

Staffing[39]

- The call center is staffed with approximately 74 employees. AmerenIP has not had any new employees since 2006, and they have not made a decision on whether to use Manpower or EEI for selection of new employees. AmerenIP uses a lab environment for training. AmerenIP has agents that carry company provided cell phones for call-outs for one week at a time Monday – Sunday. Cell phones are given out to CSRs starting with the CSR that has the lowest number of overtime hours until the desired number of CSRs is reached. AmerenIP normally has a minimum of 3-5 cell phones out at any time and can go as high as 10. The number varies based on weather conditions and weather forecasted. Volunteers with cell phones are expected to be on premise within 30 minutes of being called. A minimum call out is for 2 hours. Cell phone agents are used for any immediate emergency purpose. In 2005, AmerenIP started using an outsourced call center in North Carolina, which generally handles delinquent accounts. AmerenIP call center has experienced an average turnover rate of 9% annually, which is below industry standards.

Scheduling[40]

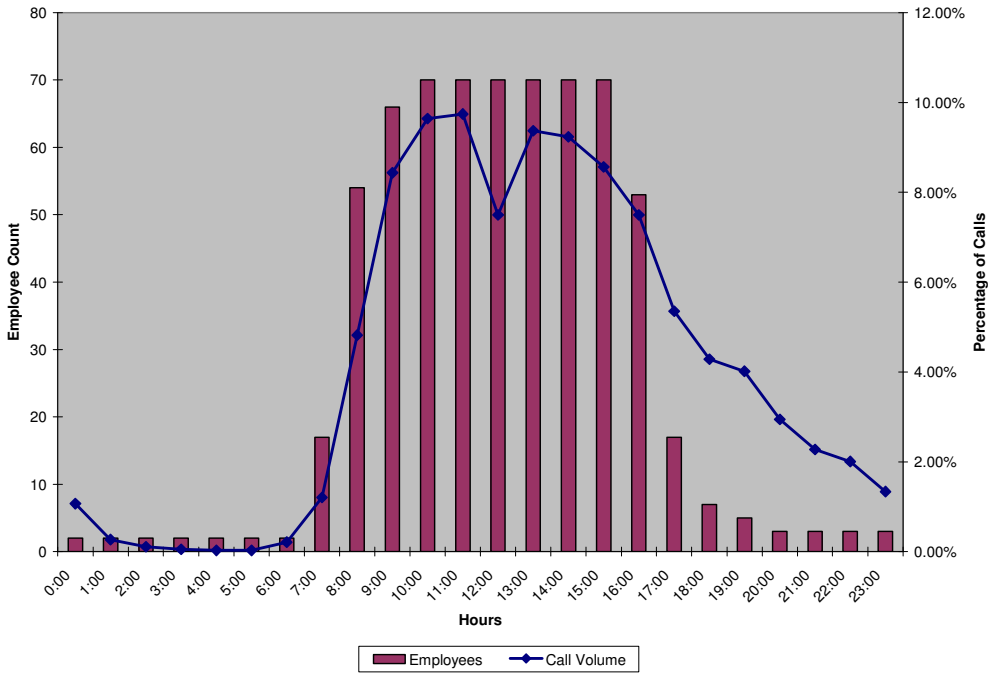
- The first shift begins at 7:00 a.m. and AmerenIP brings on additional CSRs every 30 minutes thereafter. AmerenIP has an electronic workforce management system, which is a call center optimization software that looks at half-hour increments and historical call patterns to determine the total number of FTEs needed to determine shift assignments. AmerenIP, however, prefers to make incremental adjustments to staff based on known issues.

- We analyzed how the CSR's shifts were scheduled to determine the adequacy of staff during the peak call times.

[39] DR-111 DR-110 DR-082

[40] DR-064

Figure 24 - Call Center Hourly Staffing



- As can be seen in the above figure, the addition of CSRs is consistent with the typical daily hourly increase in call volume. [41]

Technology[42]

- The Company uses numerous main systems to enable the call center personal to better serve the customer. These systems are integrated with other Company systems such as meter reading, outage management and service order. Below is a brief description of each system.

  Customer Information System – Referred to internally as CSS (Customer Service System). This system is Accenture's Customer/1 System that was originally installed in 1998 and was extensively modified to support internal and mandated regulatory needs (such as Illinois Deregulation). The system is maintained in-house and provides the following (not limited to) functionality: Active/Final Collections ,Bankruptcy, Budget Billing, Bill Presentation/Printing, Billing, Cancel Adjust/Cancel Rebill, Cash Processing, Charge Offs, Collection Agencies, Collection Arrangements, Orders (Connects, Cuts, Disconnects, Investigations, etc.), Deposits, Deregulation, Dollar More, DSS Billing (Dereg),

[41] Teletraffic Modeling for Personal Communications Services Derek Lam, Donald C. Cox, Jennifer Widom Electrical Engineering & Computer Science Depts. Stanford University
[42] DR-024

EFT, Energy Assistance includes eLI HEAP, GL/Revenue Reporting, Landlord Agreements, Lighting, Marketing Campaign, Medical Equipment Registry [MER], Non-service Accounts, Payment Agreements, Refunds, Revenue Protection, Summary Billing, Taxes, USMS Billing, etc. The CSS system is interfaced with OAS, GIS, DOJM, eCustomer, etc. The CSS information is also viewable (internally on our intranet) through the eCSS system. Numerous other smaller systems and software are utilized within CSS to accomplish its operations and functions.

VRU – Voice Response Unit - This internal system accepts customer calls, prompts them to determine the nature of their call and either completely handles the call or directs the call to a customer service rep. Calls completely handled within the VRU include reporting outages, obtaining basic account information (balance and payment info), etc. An external vendor managed VRU system is also engaged when call volume exceeds specified levels. The vendor VRU handles high volume outage calls and passes them back to the OAS system.

CSS Data Warehouse – CSS data was recently extracted into this data warehouse. The Oracle Answers based system is utilized to analyze customer revenue and usage information.

eCustomer –This system allows customers to perform transactions on their accounts through Ameren.com. The system is interfaced with CSS and provides the following functions: view bill, pay bill online, view account activity and payments, change email address, change phone numbers, change billing address, turn on service, turn off service, request copy of bill, signup for budget billing, stop budget billing, etc. The system also provides landlords the ability to manage their service locations.

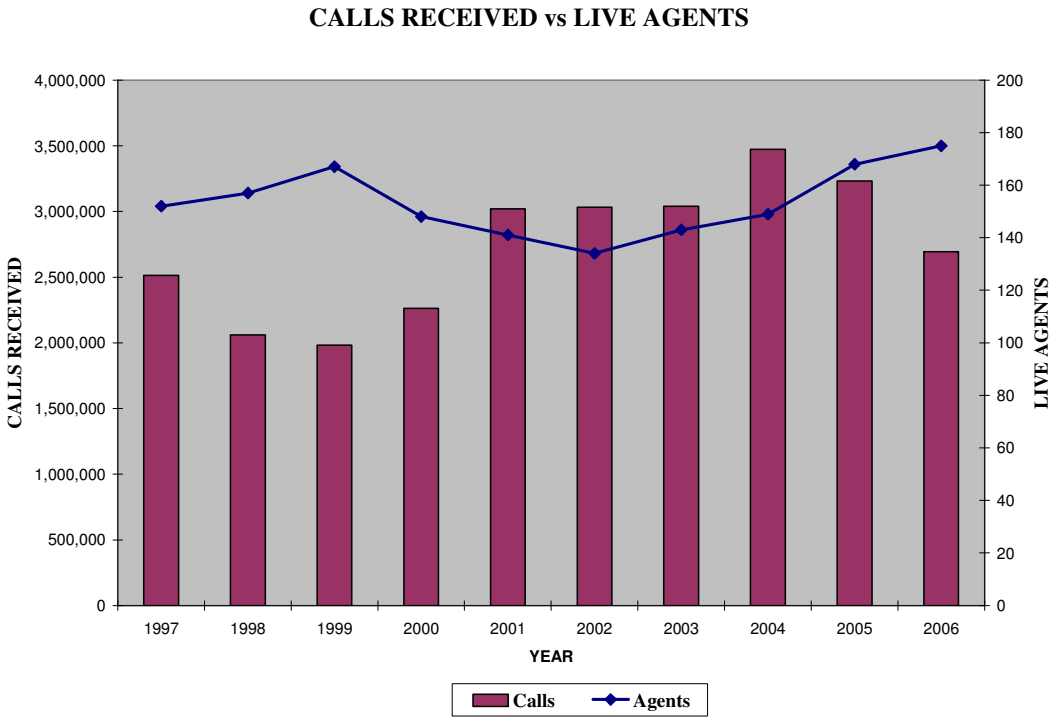
High Volume Overflow Application (HVOA) – Stericycle phone lines are integrated into Ameren's overall Call Center phone line design such that calls automatically overflow to the Stericycle IVRs during high volume periods. This is an application that receives customer calls when internal Ameren IVR and customer contact center lines are full. Customers can log a power outage call, receive an estimated restoration time for an existing outage, and be transferred to a contact center representative for emergency orders. Call overflow capacity is 15,000 calls per hour through summer 2007, and 30,000 calls per hour after summer 2007.

Performance[43]

- Customer contact call center performance is typically evaluated on the basis of key measures such as:
    - Average Speed of Answer (ASA)
    - Service Level (%)
    - Rate of Abandoned Calls (%)
- Each of these measures is highly susceptible to the influence of factors such as the number of customer service representatives available to handle calls and the average or longest duration of typical calls. Both of these factors are dependent on the circumstances and events being encountered. During normal operations, the number of customer service representatives may or may not be adequate, depending on the time of the event, the day(s) on which it occurs or the duration involved. Similarly, it is not unusual for the duration of calls to be longer during emergency situations as explanations tend to take longer than under routine conditions. We have excluded the automated agent so we can evaluate the performance of the live agents.
- The Company has set goals for:
    - ASA - Calls answered in 60 seconds or less.
    - Service Level – AmerenIP does not track service level and they expect every call to be answered in 60 or less.
    - Abandonment Rate - The number of calls that were not answered.

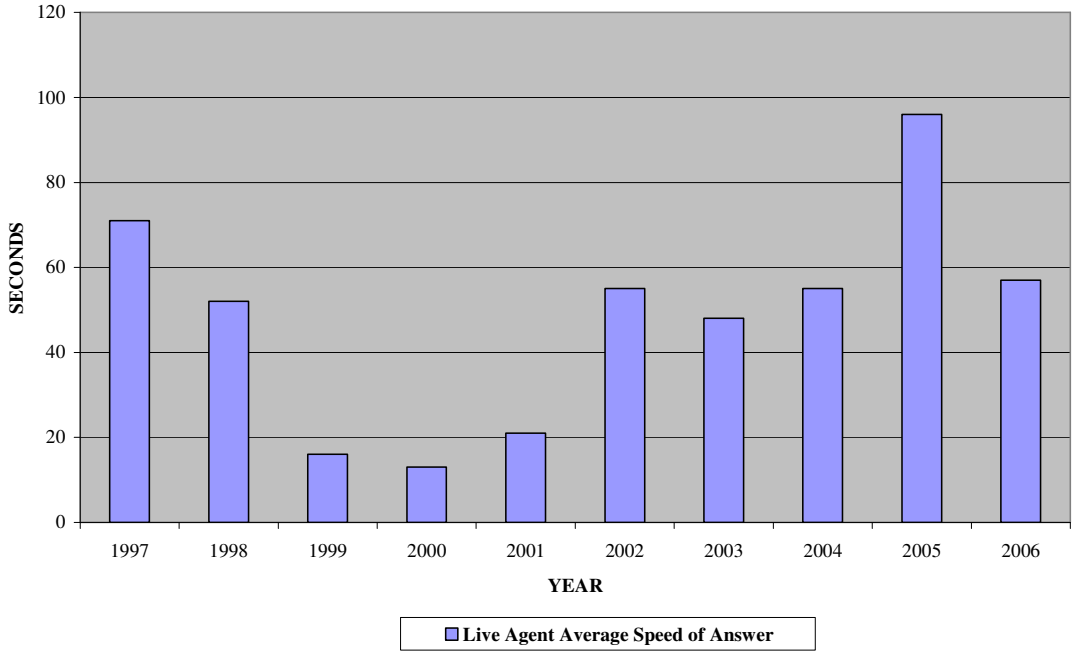
[43] DR-074

Figure 25 - Calls Received With Live Agents



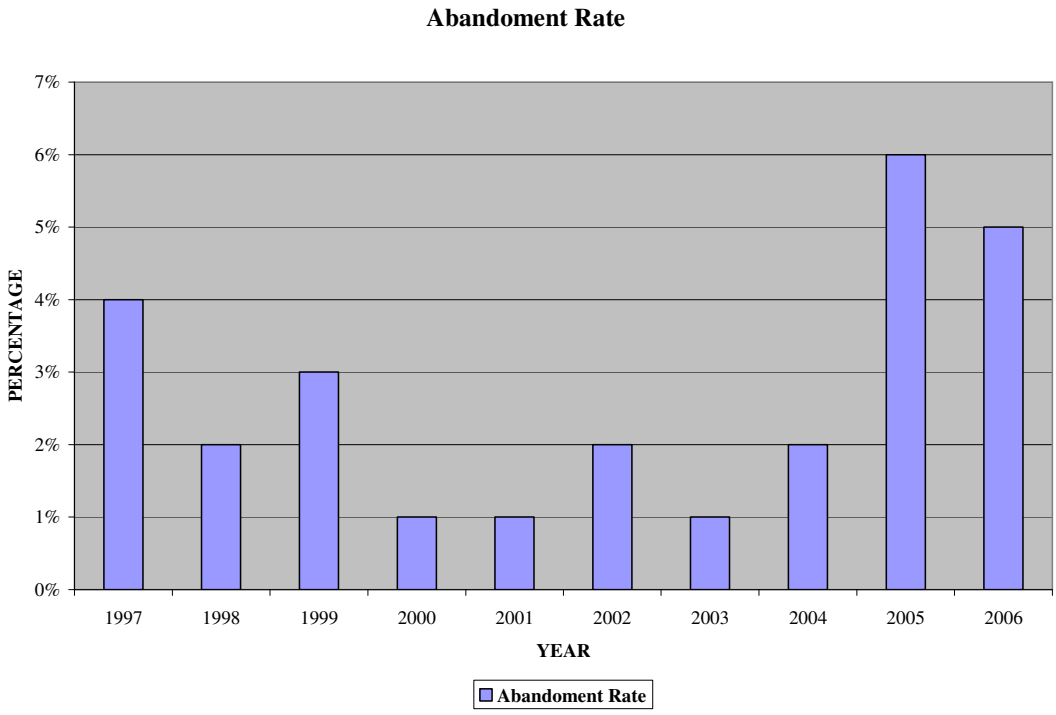
- As the total number of calls received has increased so has the number of live agents.

Figure 26 - Live Agent Average Speed of Answer



- The average speed of answer has been below the Company's goal of 60 seconds in 8 of the 10 years and is on a slight upward trend. The 2005 figure seems to be an outlier potentially caused by the conversion from the old IP customer service system to the new Ameren customer service system, and when the trend is recast without this year, the trend is level.
- The service level for the Company is expected to be 100% of the calls answered within 60 seconds; the Company has matched or exceeded its goal in 8 of 10 years.

Figure 27 - Live Agent Abandonment Rate



- The abandonment rate is decreasing and has met the industry average for utility inbound call centers of 3.5%[44] 7 times in the last 10 years. AmerenIP has met the state mandated levels of 10%[45] for all 10 years.
- IP participates in three benchmark studies:[46]
  - Market Strategies International, Inc.
  - J.D. Power & Associates

[44] Purdue University Call Center Benchmark Study @ 2006

[45] DR-028

[46] DR-083

- Customer Contact Index

- The Company has received ratings in the upper quartile in each of the studies and has shown continued decrease in customer satisfaction. Below is the result of the studies.

Table 15 - Market Strategies International Overall Customer Satisfaction with Ameren IP
0-10 scale, total satisfied scores = 6-10

Year	Residential
2005	7.64
2006	7.63
2007	6.17

Table 16 - J.D. Power & Associates Overall Customer Service Index Score

Year	Residential Electric	Business Electric[3]
2003	100 (old); 774 (new)	n/a
2004	97 (old); 751 (new)	102 (old); 657 (new)
2005	97 (old); 766 (new)	104 (old); 674 (new)
2006 [1]	653	648
2007 [2]	602	655

1. In 2006, J.D. Power & Associates moved from giving index scores based on a centered-to-100 scale, to giving scores based on a maximum 1000 point scale, in order to provide improved reporting and trending capabilities. Whereas the "high" scores on the centered-to-100 scale were normally in the 110-120 range, the "high" scores on the maximum 1000 point scale typically range from 690-770. Due to the change, some index scores from prior years were recalculated using the maximum 1000 point scale, in order to make an "apples-to-apples" comparison.
2. In 2007 Ameren only reported the J. D. Power & Associates numbers for Ameren Illinois and not individual companies.
3. The Business Electric customer service index is for Ameren Illinois not the individual companies.

Table 17 - Customer Contact Tracking Study
Overall Customer Satisfaction with Electric Utility

Year	Overall Satisfaction
2007*	82%

* In 2007 the Customer Contact Index was reported for Ameren Illinois and not individual companies.

5.5.3 Conclusions

The Company staffs the call center in accordance with the flow of call volume and uses technology to enhance the call center's ability to service customers in an effective and efficient manner. The technologies employed include: Customer Service System, High Volume Outage Call Answering System, Integrated Voice Response Unit System, Electronic

Workforce Management & Real Time Adherence System, Automatic Call Distributor, Call Quality Monitoring & Survey System, and Computer Telephony Integration System. AmerenIP's call center internal goals and KPI are satisfactory and increasing indicating that the center is managed in an effective and efficient manner. AmerenIP's call center in the last five years has seen a decrease in customer satisfaction surveys conducted by Market Strategies International, Inc., J.D. Power & Associates, and Customer Contact Index. This could be a result of issues such as multiple storms and/or rate increases which is beyond the direct control of the call center. As noted in the Market Strategies 2007 report,[47] "The influence of electric rate increases and storm outages together is also being measured in the growing negative perceptions of Ameren's customer service processes, including performance of employees, general accessibility, and billing. All have experienced significantly declining performance in total positive response compared to one year ago. The rate increases are mentioned prominently by more than one-half of customers as the primary reason behind their unfavorable impressions of Ameren in 2007."

5.5.4 Recommendations

None

[47] DR-083

Appendix A

List of Recommendations

Section	No.	Recommendation
Operations & Maintenance	5.1.1	Ameren should update the Open Position Action Plan annually to continue to reflect the workforce needs as specified in the Towers Perrin Work Force Projection Study. Once established, the Open Position Action Plan should be aggressively pursued to increase the electric field workforce.
	5.1.2	Ameren Illinois should articulate and implement a staffing strategy that promotes consistent in-house and outsourced worker utilization between various divisions and operating centers.
	5.1.3	Ameren Illinois should study the advantages of expanding the Distribution Design Center (DDC) concept employed at AmerenIP system wide to capture the efficiencies that it may offer and the permit field engineering representatives to focus more on customer relationships.
	5.1.4	Ameren Illinois should study the results of the RCP program, currently utilized at AmerenIP, for effectiveness and if appropriate, consider extending the concept to other areas of its Illinois operations.
Training & Safety	5.2.1	Improve ability to forecast future retirements for key bargaining positions by conducting annually, an informal nonbinding survey of those who are within four years of retirement age.
	5.2.2	Participate in an ongoing safety benchmarking survey with comparable electric distribution utilities, so that best practices may be identified and analyzed, and uncover opportunities for AmerenIP to proactively pursue.
	5.2.3	Re-title the Director— Gas Operations position to reflect his Ameren Illinois electric technical training responsibilities.
Quality Assurance	5.3.1	Establish a formalized documentation process for the quality assessment and control process employed by AmerenIP.
	5.3.2	Increase the number of Quality Assurance inspectors above the current level of two to permit a larger sample of the system to be inspected annually for quality.
Distribution System Condition Assessment	5.4.1	AmerenIP should review its substation inspections to assure the adequacy of fence and gate grounds.

Appendix B

Background

Every electric utility is expected to extend its service to meet the needs of a growing population. Power is needed to be provided in a reliable, safe, and timely fashion. To maintain high standards of service quality and safety, utility managers traditionally have opted for the control of an in-house work force. As a result, many utilities did not have to rely on others to provide support to its staff or rely on others to meet its customers' needs.

In view of regulatory reform and restructuring, many regulated distribution utilities developed strategies to shift risk, reduce costs, and refocus attention on core functions. Core functions are the tasks the Utility and its in-house workforce perform best. Utility management decisions to outsource raise questions about the relationships between the distribution utility and its employees, the external service providers, the regulators and the ultimate customer. This report focuses on the relationship between the distribution utility, its workforce and customers.

Outsourcing can be defined as creating a long-term, results-oriented relationship with an external service provider for activities traditionally performed within the Company. Usually, the term "outsourcing" applies to a complete business process, where some degree of managerial control and risk are shared by the service provider. This compares to the relatively straightforward procurement of goods or services where support is rendered, but the Company continues to assume the risks and takes management responsibility for the requested service.

Outsourcing Philosophy

Essential distribution functions include distribution system planning: the construction, operation, and maintenance of the distribution circuits and substations; connection of new residential, commercial, and industrial customers; and the monitoring and emergency restoration of the distribution system. Most utilities contract out a portion of construction and maintenance of the distribution system, including functions like tree trimming and other right-of-way maintenance as well as distribution line and substation construction. All essential distribution functions are potential candidates for outsourcing. The business benefits that can be achieved through outsourcing are well documented and have been proven by past experience, both within and outside the utility industry. These benefits include:

- Cost savings are typically achieved by lower labor costs, increased productivity, and economies of scale delivered by an outsource service provider.
- Performance improvement is generally delivered through the use of technologies and business processes that may be better than those employed by the Utility, and where

the service provider can invest and focus on functions that are core to its business but not core to the Utility that chooses to outsource them.

- Increased flexibility/scalability is provided through contract terms that support different levels of business activity, allowing costs to fluctuate with changing volumes of work. This is a key benefit for utilities with fluctuating activity volumes.
- Access to innovation and best practices is made available by the service provider whose primary business is to support specific business functions. This focus allows them to build expertise and access a broader market of clients, enabling them to identify and leverage good ideas from a wide base of exposure.
- Access to a labor force is supplied by a service provider who focuses on specific functions, hires resources specifically for these functions, and provides greater career development opportunities associated with the performance of a specific type of work, may lead to enhanced efficiencies.

At AmerenIP, outsourcing has primarily sought increased flexibility in addressing fluctuating workload volumes and subcontracting of lower-skilled work. Driven by the need to maintain in-house knowledge of the distribution, transmission system and the desire to have first responders be Company staff to ensure quality service, and help preserve brand recognition, the distribution system contractors are primarily used to fill workload peaks and perform lower skilled work. Currently, about 27% of AmerenIP's distribution system line work is outsourced.

This approach and level of outsourcing represents a moderate amount from our experience, and places certain obligations on the Utility's management as well as impacts on the Utility's workforce. Management must ensure that the quality of the work completed is consistent with customer service standards that the cost of the work is reasonably similar to what the work would cost if were performed by the in-house staff, and that high quality customer service is provided. At the same time, the workforce may see a reduction in the total number of employees as well as a reduction in the breadth of job skills. Unions may attempt to erect barriers to outsourcing through their negotiated labor agreements by seeking language which may prohibit or greatly limit the Company's ability to outsource. In addition, unions may seek to gain support for their position by using their political influence concerning job loss.

Appendix C

Organized Labor

This appendix presents an overview of the events that occurred during the study period which have helped to shape organized labor at AmerenIP. We first list the extensive organizational changes and then the more typical utility technological enhancements that have taken place. We then briefly review the history of outsourcing and the type of work activities AmerenIP contracted. Finally, we highlight the subcontractor contract language contained in the Company's agreement with its largest union IBEW Local Union 51, which until 2007 negotiations has remained unchanged throughout the study period.

Events Impacting Workforce Employment

Over the study period, AmerenIP employees were impacted by mergers, industry restructuring, and organizational changes. In addition, the workforce was directly affected by numerous material, equipment and automation changes.

A chronology of major events impacting the workforce included:

- 1995: IP was organized as a traditional utility with gas and electric operations and generation, and consisted of 3,559 utility employees.
- 1994-1996: IP underwent a business process reengineering effort to reduce costs, operate more efficiently and improve customer satisfaction.
- 1995: Early retirement packages were offered reducing layers of management and Company employment to 2,832.
- 1996-1998: Area offices consolidated; local offices no longer accepted customer payments.
- 1998: Automated meter reading pilot initiated; meter reading openings filled with contract employees; program subsequently eliminated.
- 1997: Jobsite reporting and Regional Construction Program (RCP) construction crews initiated.
- 1998: Electric Generating Plants are divested.
- 2000: Clinton Nuclear Power Plant is sold.
- 2000: Dynegy, Inc. purchased IP; initiating a different management philosophy which included: reduced layers of management, increased supervisory spans of control and a regional organization.

- 2000-2001: Early retirement packages were offered reducing Company non-union employment by 273 and 90.
- 2004: Ameren Corp. purchased IP; promulgating Ameren technical systems, Ameren distribution dispatch operations, corporate functions centralized in St. Louis.
- 2004: Early retirement packages were offered reducing Company employment by the end of 2005 by approximately an additional 250 employees.
- 2005: 341 employees were transferred to Ameren Services, which provides support services to the Corporation and its subsidiaries.

Throughout the study period, various material, vehicle, equipment and automation improvements were made. Some major improvements included:

- Material handling bucket trucks, track type trenchers, radar fault detectors, etc.
- Increased use of directional drilling by contractor crews as an alternative to open trenching
- IP customer service system
- Contact center communications system
- Automated mapping and customer order system
- Processing scheduling of service personnel utilizing mobile data terminals
- AmerenIP customer service system
- Upgrade in contact center communications system
- Outage assessment system including managing of daily service orders
- Planning and prioritization system

Outsourcing History and Activities

In general, line construction core business activities have been assigned to the AmerenIP employees first and contractor crews have been used to help smooth out workload peaks and valleys. Typically, contractors are assigned projects of a larger scale, projects requiring special equipment or skills, work activities that would tie up in-house resources for an extended period or require extensive travel from an operating center. In the late 1990s, IP began using in-house RCP construction crews. These crews report directly to the job site and generally work on larger projects that otherwise would have been subcontracted.

Meter maintenance, repair and service work is generally completed in-house. However, in the meter reading area, the number of in-house meter readers has been reduced in anticipation of the adoption of automated meter reading (AMR). By replacing meter reading vacancies with contractors, the transition to an AMR environment should ultimately have less impact on the workforce. The actual work associated with the implementation of the AMR program is being completed with a combination of in-house and contracted resources.

In addition, the Company has increased the use of contractors for activities that do not require the high skill levels possessed by journeyman linemen, relay technicians and substation journeymen. Typical linemen-related lower-skilled work that has been outsourced includes: meter reading underground line locating, pole testing and treating, and clean up after construction completion. Similarly, lower rated substation/relay group related work that has been moved to contractors includes: foundation construction, fencing repair and installation, grounds maintenance, etc.

Labor Agreement Contracting Language

The electric bargaining unit employees of AmerenIP are members of four different unions including: IBEW Union Local 51, the largest Company union, represents the crafts workforce in LaSalle, Galesburg, Kewanee, Bloomington, Danville, Champaign, Decatur, and Jacksonville. IBEW Local Union 309 represents the workers in Belleville, Maryville, East St. Louis, and Hillsborough. IBEW Local Union 702 represents the workforce in Mount Vernon, Eldorado and Sparta. IBEW Local 1306 represents the field engineering representatives throughout all IP territories.

The section of the IBEW Union Local 51 labor agreement concerning contracting of work is Article I, Section 5. Prior to the 2007 negotiations, this Article and Section indicated that if the Company should contract out work, the work would be done by a contractor who employs labor under conditions acceptable to the Union. The section further read that the Company would not contract out any work normally done by its employees if it could result in a layoff or a reduction in pay. At the conclusion of the 2007 contract negotiations, the parties agreed to a change in language. The original language stated that the work would be done by a contractor who employs labor under conditions acceptable to the Union, compared to stating that the contractor employees performing the work receive an amount at least equivalent to the wages and benefits of the classifications normally performing the work at AmerenIP, unless the workers are covered by a separate IBEW or AFL/CIO agreement. It was further agreed that the subcontracting restrictions do not apply to non-core work or work performed during periods of emergency.

IBEW Union Local 51 labor agreement had and still has the most restrictive outsourcing language of any of the AmerenIP unions. The Company's other three Unions Locals 1306, 702 and 309 agreements do not contain language dealing with contractor employee requirements.

Collectively, their contract language is very similar stating the Company will not contract out any work which is normally done by its employees, if as a result it would become necessary to "concurrently" to lay-off or reduce employee rates of pay. The word "concurrently" is defined as meaning within six months of the initial layoff. This language also pertains to Union Local 51.